

# ELISA Kit and Reagent Set



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## ELISA kits

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Sandwich ELISAs are developed by Euroclone Ltd for the measurement of human, murine and rat cytokines and other soluble cellular markers. All reagents provided in the Elisa kits and Reagent Set are subjected to extensive performance testing to guarantee accuracy and reproducibility.



ELISA Kit

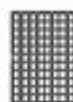


Reagent Set

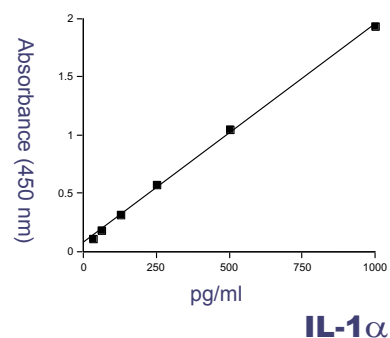
# Human Cytokines and Receptors

## human IL-1 $\alpha$

<b>Cat. No.:</b>	DKH005 (1x96 wells) DKH005-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human IL-1 $\alpha$ No cross reactivity with other human cytokines
<b>Sensitivity:</b>	<10 pg/ml
<b>Standard Range:</b>	31.2-1000 pg/ml
<b>Total Assay Time:</b>	3 h 45 min
<b>Sample Volume:</b>	100 $\mu$ l
<b>Sample Material:</b>	Serum, plasma, cell culture supernatant
<b>Calibrated to:</b>	WHO 86/632
<b>Detection System:</b>	Streptavidin-HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date

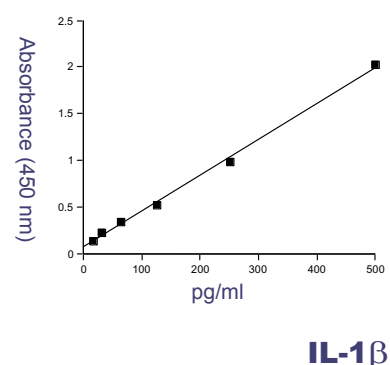


## Typical Standard Curves



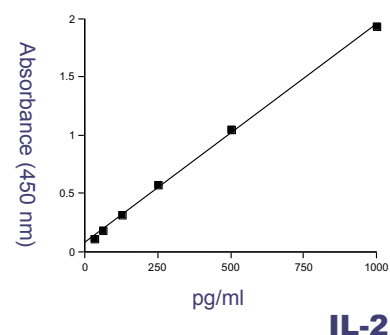
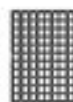
## human IL-1 $\beta$

<b>Cat. No.:</b>	DKH006 (1x96 wells) DKH006-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human IL-1 $\beta$ No cross reactivity with other human cytokines
<b>Sensitivity:</b>	<5 pg/ml
<b>Standard Range:</b>	15.6-500 pg/ml
<b>Total Assay Time:</b>	3 h 45 min
<b>Sample Volume:</b>	100 $\mu$ l
<b>Sample Material:</b>	Serum, plasma, cell culture supernatant
<b>Calibrated to:</b>	WHO 86/680
<b>Detection System:</b>	Streptavidin-HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date



## human IL-2

<b>Cat. No.:</b>	DKH010 (1x96 wells) DKH010-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human IL-2 No cross reactivity with other human cytokines
<b>Sensitivity:</b>	<10 pg/ml
<b>Standard Range:</b>	31.2-1000 pg/ml
<b>Total Assay Time:</b>	1 h 50 min
<b>Sample Volume:</b>	100 $\mu$ l
<b>Sample Material:</b>	serum, plasma, cell culture supernatant
<b>Calibrated to:</b>	WHO 86/504
<b>Detection System:</b>	Streptavidin-HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date



RPITMB Substrate System  
Ready To Use!

**human sCD25 / sIL-2R**

**Cat. No. :** DKH500 (1x96 wells)  
DKH500-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble IL-2R  
No cross reactivity with other human soluble receptor

**Sensitivity:** < 8pg/ml

**Standard Range:** 68.75-2220 pg/ml

**Total Assay Time:** 3 h 40 min

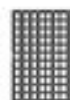
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

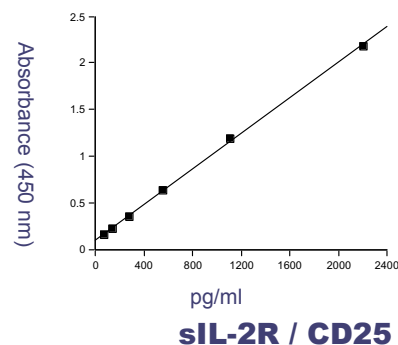
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date .



**Typical Standard Curves**



**human IL-4**

**Cat. No. :** DKH020 (1x96 wells)  
DKH020-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-4  
No cross reactivity with other human cytokines

**Sensitivity:** < 0.5 pg/ml

**Standard Range:** 1.1-35 pg/ml

**Total Assay Time:** 3 h 50 min

**Sample Volume:** 100 µl

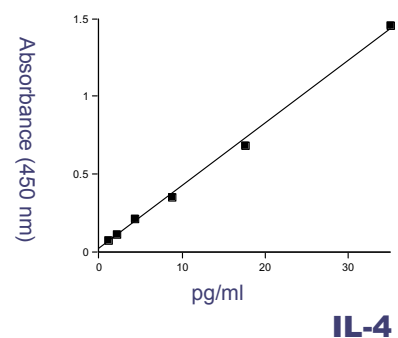
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 86/656

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date .



**human sCD124 / sIL-4R**

**Cat. No. :** DKH670 (1x96 wells)  
DKH670-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble IL-4R  
No cross reactivity with other human soluble receptor

**Sensitivity:** < 11.5 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 1 h 45 min

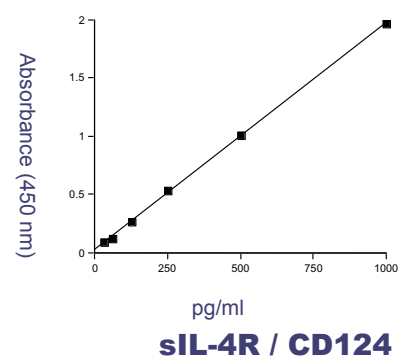
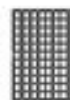
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human IL-5**

**Cat. No. :** DKH025 (1x96 wells)  
DKH025-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-5  
No cross reactivity with other human cytokines.

**Sensitivity:** < 5 pg/ml

**Standard Range:** 7.8-250 pg/ml

**Total Assay Time:** 3 h 45 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 86/548

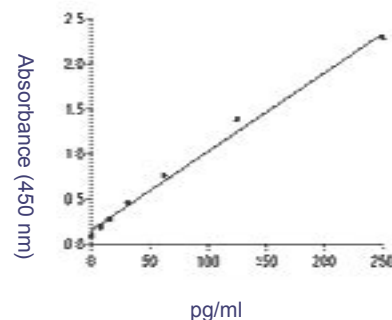
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**IL-5**

**human IL-6**

**Cat. N°:** DKH035 (1x96 wells)  
DKH035-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-6  
No cross reactivity with other human cytokines or soluble receptor gp80

**Sensitivity:** < 0.8 pg/ml

**Standard Range:** 1.56-50 pg/ml

**Total Assay Time:** 3 h 45 min

**Sample Volume:** 100 µl

**Sample Material :** Serum, plasma, cell culture supernatant

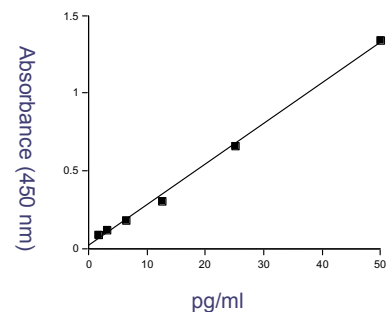
**Calibrated to:** WHO 86/548

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date

**ULTRA SENSITIVE**



**IL-6 HS**

**human sCD126 / sIL-6R**

**Cat. No. :** DKH510 (1x96 wells)  
DKH510-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble IL-6R  
No cross reactivity with other human soluble receptor or soluble gp130 and IL-6

**Sensitivity:** < 5pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 1 h 40 min

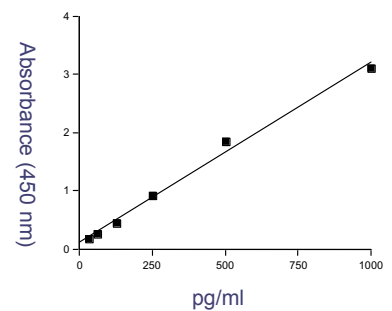
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**sIL-6R / CD126**

**human IL-7**

**Cat. No. :** DKH040 (1x96 wells)  
DKH040-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-7  
No cross reactivity with other human cytokines

**Sensitivity:** < 3 pg/ml

**Standard Range:** 6.25-200 pg/ml

**Total Assay Time:** 2 h 40 min

**Sample Volume:** 100 µl

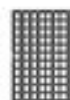
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 86/530

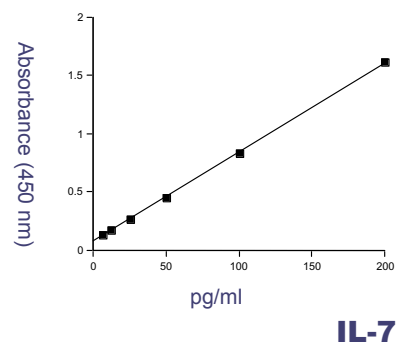
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**human IL-8**

**Cat. No. :** DKH050 (1x96wells)  
DKH050-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human IL-8  
No cross reactivity with other human cytokines

**Sensitivity:** < 25 pg/ml

**Standard Range:** 62.5-2000 pg/ml

**Total Assay Time:** 1 h 40 min

**Sample Volume:** 100 µl

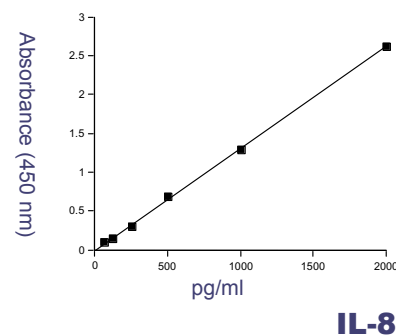
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 86/520

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human IL-10**

**Cat. No. :** DKH060 (1x96wells)  
DKH060-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human IL-10  
No cross reactivity with other human cytokines or viral IL-10. The assay is tested against simian IL-10

**Sensitivity:** < 5 pg/ml

**Standard Range:** 12.5-400 pg/ml

**Total Assay Time:** 2 h 40 min

**Sample Volume:** 100 µl

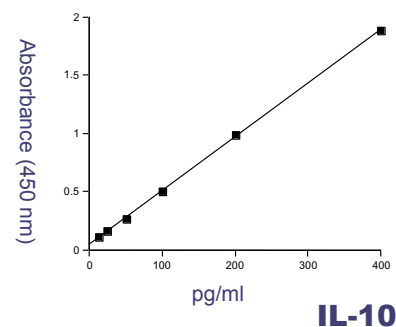
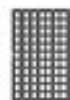
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 93/722

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human IL-12 p70**

**Cat. No. :** ELISA KIT DKH070 (1x96wells)  
DKH070-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human IL-12 p70 heterodimer  
No cross reactivity with other human cytokines

**Sensitivity:** < 3 pg/ml

**Standard Range:** 6.25-200 pg/ml

**Total Assay Time:** 3 h 40 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 95/544

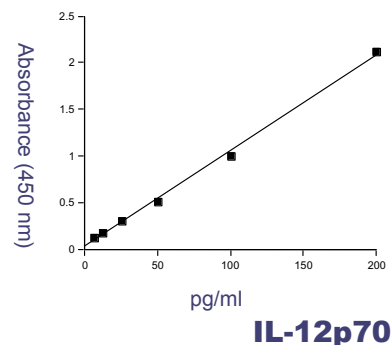
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**human IL-12 p40/p70**

**Cat. No. :** ELISA KIT DKH075 (1x96 wells)  
DKH075-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-12 p40 monomer, dimer or heterodimer p40+p35 forms. No cross reactivity with other human cytokines. The assay is tested against feline and canine IL-12 p40

**Sensitivity:** < 20 pg/ml

**Standard Range:** 62.5-2000 pg/ml

**Total Assay Time:** 1 h 50 min

**Sample Volume:** 100 µl

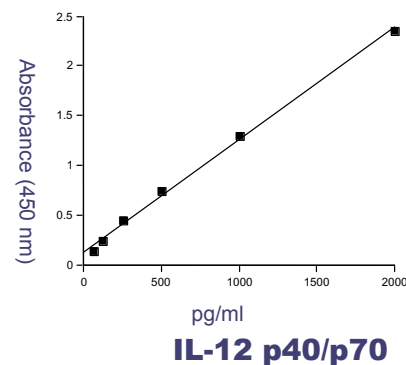
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 95/544

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human IL-13**

**Cat. No. :** ELISA KIT DKH080 (1x96wells)  
DKH080-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human IL-13  
No cross reactivity with other human cytokines

**Sensitivity:** < 1.5 pg/ml

**Standard Range:** 3.12-100 pg/ml

**Total Assay Time:** 2 h 10 min

**Sample Volume:** 100 µl

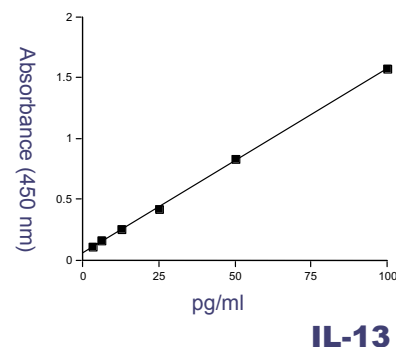
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 94/622

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The it is stable at 4°C until expiration date



**Euroclone ELISA Kits Assay Flexibility:** Test Serum, Plasma, biological fluid and Cell Culture Supernatants on the same plate using a single standard curve and simple assay procedure

**human TNF- $\alpha$**

**Cat. No. :** DKH090 (1x96 wells)  
DKH090-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human TNF $\alpha$ . No cross reactivity with other human cytokines or soluble TNFR-I and II. The assay is tested against macac TNF $\alpha$

**Sensitivity:** < 10 pg/ml

**Standard Range:** 25-800 pg/ml

**Total Assay Time:** 3 h 40 min

**Sample Volume:** 100  $\mu$ l

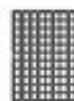
**Sample Material :** Serum, plasma, cell culture supernatant

**Calibrated to:** WHO 87/650

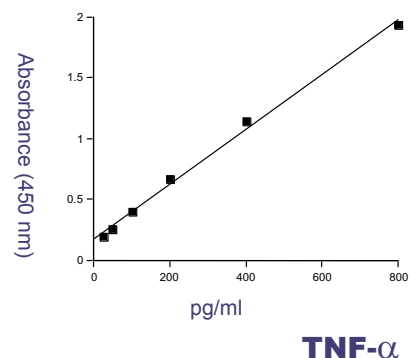
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**human IFN- $\gamma$**

**Cat. No. :** DKH000 (1x96wells)  
DKH000-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human IFN $\gamma$ . No cross reactivity with other human cytokines. The assay is tested against simian IFN $\gamma$

**Sensitivity:** < 5 pg/ml

**Standard Range:** 12.5-400 pg/ml

**Total Assay Time:** 2 h 40 min

**Sample Volume:** 100  $\mu$ l

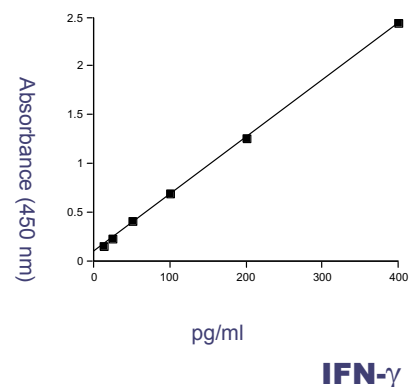
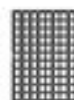
**Sample Material:** Serum, plasma, cell culture supernatant

**Calibrated to:** NIH Gxg 01.902.535

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human sCD130 / sgp130**

**Cat. No. :** DKH520 (1x96 wells)  
DKH520-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble gp130. No cross reactivity with other human soluble receptor or soluble gp80 and IL-6

**Sensitivity:** < 15pg/ml

**Standard Range:** 56.25-1800 pg/ml

**Total Assay Time:** 1 h 40 min

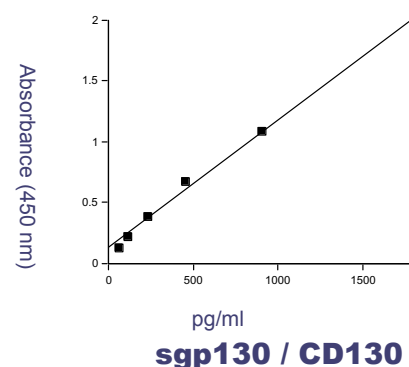
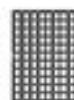
**Sample Volume:** 100  $\mu$ l

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human sCD116 / sGM-CSFR**

**Cat. No. :** DKH660 (1x96 wells)  
DKH660-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble GM-CSF receptor  $\alpha$   
No cross reactivity with other human soluble receptor

**Sensitivity:** < 16pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

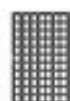
**Sample Volume:** 100  $\mu$ l

**Sample Material:** Serum, plasma, cell culture supernatant

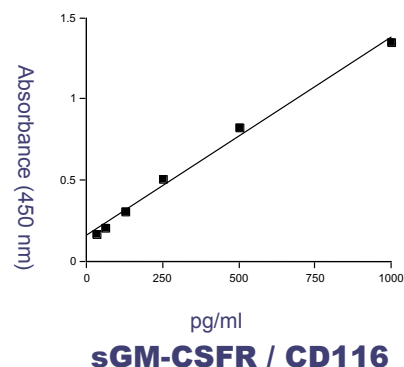
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**sGM-CSFR / CD116**

**human sCD117 / sc-KIT**

**Cat. No. :** DKH700 (1x96 wells)  
DKH700-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble c-kit  
No cross reactivity with other human soluble receptor

**Sensitivity:** < 0.095 ng/ml

**Standard Range:** 0.312-10 ng/ml

**Total Assay Time:** 1 h 45 min

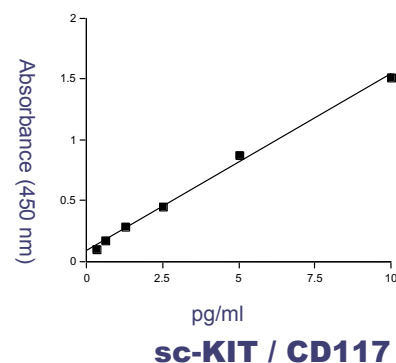
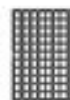
**Sample Volume:** 100  $\mu$ l

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**sc-KIT / CD117**

# Human Soluble Molecules

## human sCD31 / sPECAM-1

**Cat. No. :** DKH710 (1x96 wells)  
DKH710-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble PECAM-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.110 ng/ml

**Standard Range:** 0.312-10 ng/ml

**Total Assay Time:** 2 h 45 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

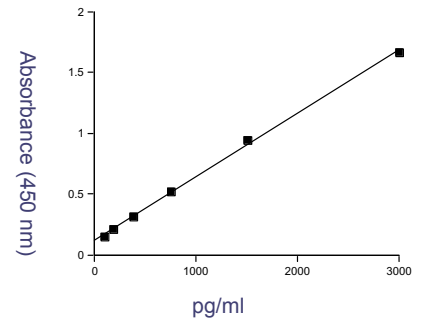
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



## Typical Standard Curves



**CD31 / sPECAM-1**

## human sCD44 / sPgp-1

**Cat. No. :** DKH570 (1x96 wells)  
DKH570-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble Pgp-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.13 ng/ml

**Standard Range:** 0.31-10 ng/ml

**Total Assay Time:** 2 h 10 min

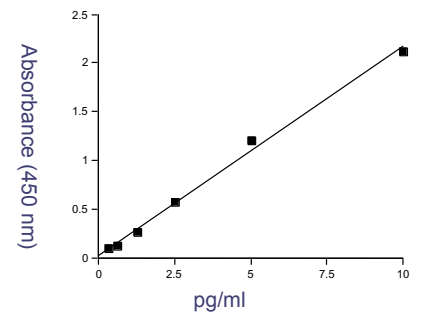
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**CD44 / sPgp-1**

## human sCD50 / sICAM-3

**Cat. No. :** DKH560 (1x96 wells)  
DKH560-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble ICAM-3. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.3 ng/ml

**Standard Range:** 0.62-20 ng/ml

**Total Assay Time:** 1 h 40 min

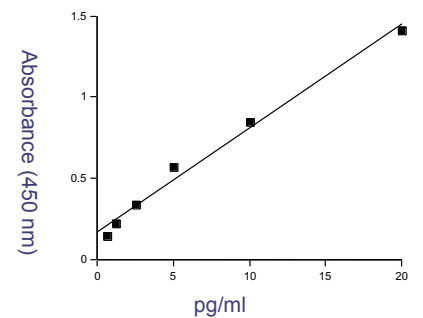
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**CD50 / sICAM-3**

**human sCD54 / sICAM-1**

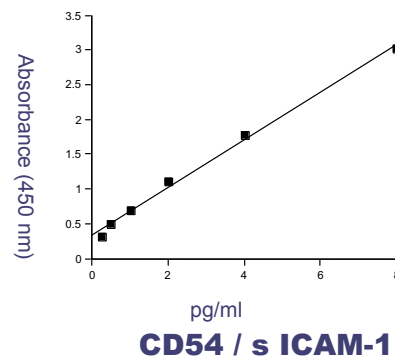
**Cat. No. :** DKH540 (1x96wells)  
DKH540-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human soluble ICAM-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.1 ng/ml  
**Standard Range:** 0.25-8 ng/ml  
**Total Assay Time:** 1 h 40 min  
**Sample Volume:** 100 µl  
**Sample Material:** Serum, plasma, cell culture supernatant  
**Detection System:** Streptavidin-HRP/TMB  
**Wavelength:** 450 nm  
**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**

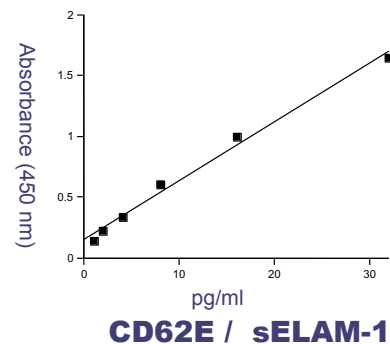


**human sCD62E / sELAM-1**

**Cat. No. :** DKH530 (1x96 wells)  
DKH530-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble ELAM-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.5 ng/ml  
**Standard Range:** 1.0-32 ng/ml  
**Total Assay Time:** 2 h 10 min  
**Sample Volume:** 100 µl  
**Sample Material:** Serum, plasma, cell culture supernatant  
**Detection System:** Streptavidin-HRP/TMB  
**Wavelength:** 450 nm  
**Storage and Stability:** The kit is stable at 4°C until expiration date

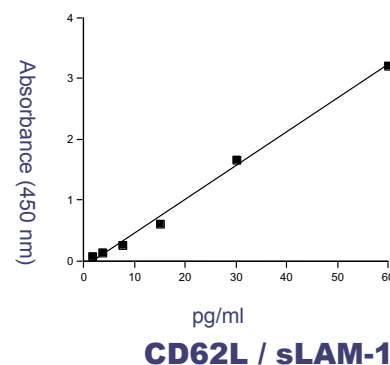


**human sCD62L / sLAM-1**

**Cat. N°:** DKH650 (1x96 wells)  
DKH650-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble LAM-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.1 ng/ml  
**Standard Range:** 1.6-60 ng/ml  
**Total Assay Time:** 1 h 45 min  
**Sample Volume:** 100 µl  
**Sample Material:** Serum, plasma, cell culture supernatant  
**Detection System:** Streptavidin-HRP/TMB  
**Wavelength:** 450 nm  
**Storage and Stability:** The kit is stable at 4°C until expiration date



**human sCD102 / sICAM-2**

**Cat. No. :** DKH550 (1x96 wells)  
DKH550-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble ICAM-2. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.2 U/ml

**Standard Range:** 0.75-24 U/ml

**Total Assay Time:** 1 h 40 min

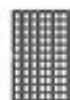
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

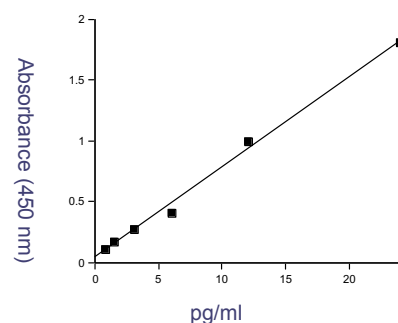
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**CD102 / sICAM-2**

**human sCD106 / sVCAM-1**

**Cat. No. :** DKH580 (1x96wells)  
DKH580-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human soluble VCAM-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.6 ng/ml

**Standard Range:** 1.56-50 ng/ml

**Total Assay Time:** 1 h 40 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**CD106 / sVCAM-1**

**human CD21**

**Cat. No. :** DKH730 (1x96 wells)  
DKH730-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble CD21. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 3 U/ml

**Standard Range:** 3.12-100 U/ml

**Total Assay Time:** 1 h 45 min

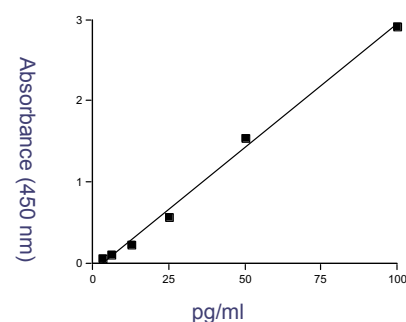
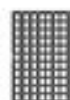
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**CD21**

**human CD86**

**Cat. No. :** DKH590 (1x96 wells)  
DKH590-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble CD86. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** 0.7 U/ml

**Standard Range:** 1.187-38 U/ml

**Total Assay Time:** 2 h 40 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

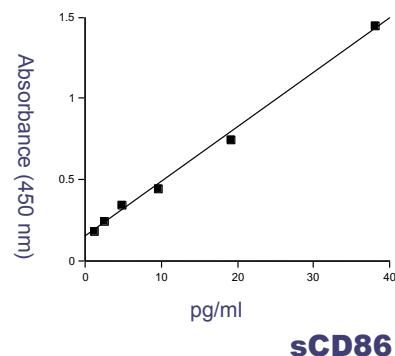
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**Typical Standard Curves**



**human sCD138 / sSYNDECAN-1**

**Cat. No. :** DKH640 (1x96wells)  
DKH640-2 (2x96wells)

**Specificity:** Detects natural and recombinant soluble human soluble SYNDECAN-1. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 2.56 ng/ml

**Standard Range:** 8-256 ng/ml

**Total Assay Time:** 1 h 45 min

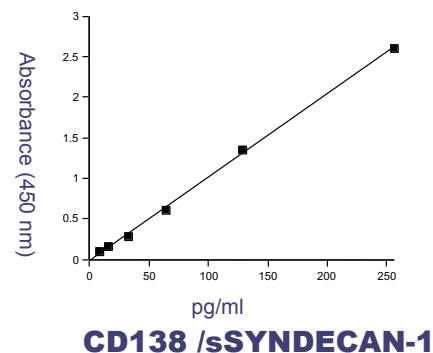
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



**human sCD141 / sTHROMBOMODULIN**

**Cat. No. :** DKH720 (1x96 wells)  
DKH720-2 (2x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble thrombomodulin. No cross reactivity with other human adhesion molecules has been detected.

**Sensitivity:** < 0.380 ng/ml

**Standard Range:** 0.625-20 ng/ml

**Total Assay Time:** 1 h 45 min

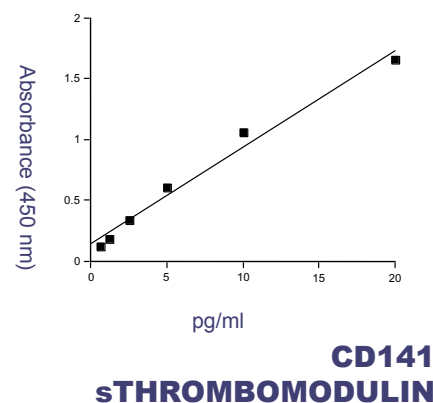
**Sample Volume:** 100 µl

**Sample Material:** Serum, plasma, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiration date



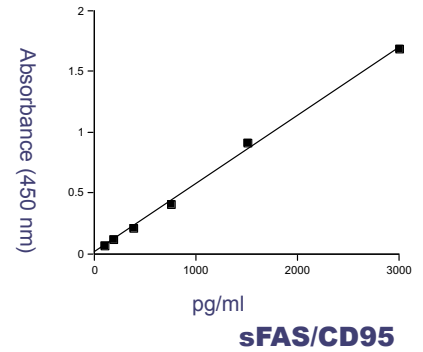
# Human Apoptosis

## human sCD95 / sFAS

<b>Cat. No. :</b>	DKH740 (1x96 wells) DKH740-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human Fas. No cross reactivity with other human soluble molecules
<b>Sensitivity:</b>	< 47 pg/ml
<b>Standard Range:</b>	93.75-3000 pg/ml
<b>Total Assay Time:</b>	1 h 45 min.
<b>Sample Volume:</b>	100 µl
<b>Sample Material :</b>	Serum, plasma, cell culture supernatant
<b>Detection System:</b>	Streptavidin -HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date

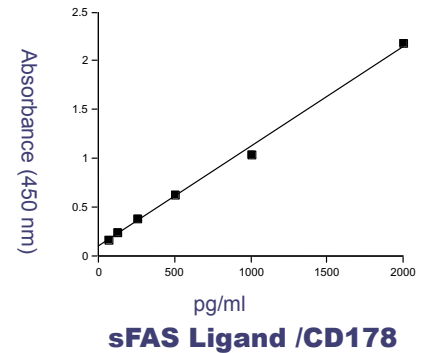


## Typical Standard Curves



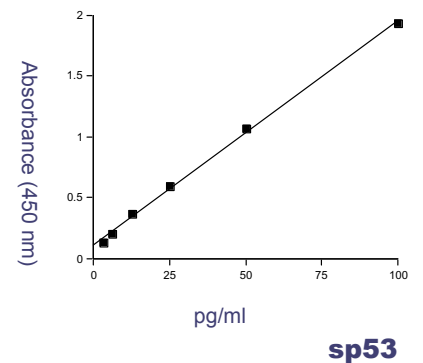
## human sCD178 / sFAS ligand

<b>Cat. No. :</b>	DKH750 (1x96 wells) DKH 750-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human Fas ligand. No cross reactivity with other human soluble molecules
<b>Sensitivity:</b>	< 44 pg/ml
<b>Standard Range:</b>	62.5-2000 pg/ml
<b>Total Assay Time:</b>	3 h 45 min
<b>Sample Volume:</b>	100 µl
<b>Sample Material :</b>	Serum, plasma, cell culture supernatant
<b>Detection System:</b>	Streptavidin-HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date



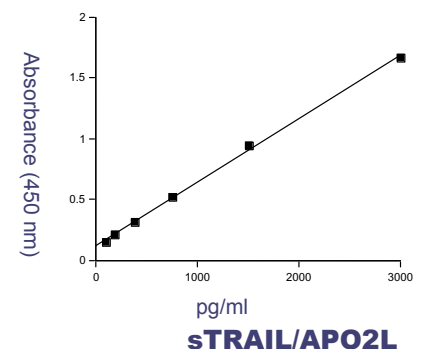
## human sP53

<b>Cat. No. :</b>	DKH630 (1x96 wells) DKH630-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human p53. No cross reactivity with other human soluble molecules
<b>Sensitivity:</b>	< 1.5U/ml
<b>Standard Range:</b>	3.1-100 U/ml
<b>Total Assay Time:</b>	3 h 45 min
<b>Sample Volume:</b>	100 µl
<b>Sample Material:</b>	Serum, plasma, cell lysate
<b>Detection System:</b>	Streptavidin -HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date



## human sTRAIL/APO2L

<b>Cat. No. :</b>	DKH770 (1x96 wells) DKH770-2 (2x96 wells)
<b>Specificity:</b>	Detects natural and recombinant soluble human Trail. No cross reactivity with other human soluble molecules
<b>Sensitivity:</b>	< 64 pg/ml
<b>Standard Range:</b>	93.75-3000 pg/ml
<b>Total Assay Time:</b>	3 h 45 min
<b>Sample Volume:</b>	100 µl
<b>Sample Material:</b>	Serum, plasma, cell culture supernatant
<b>Detection System:</b>	Streptavidin -HRP/TMB
<b>Wavelength:</b>	450 nm
<b>Storage and Stability:</b>	The kit is stable at 4°C until expiry date



# Murine Cytokines

## mouse IL-2

**Cat. No. :** DKM000 (1x96wells)  
DKM000-2 (2x96wells)

**Specificity:** Detects natural and recombinant mouse IL-2.

**Sensitivity:** < 7 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

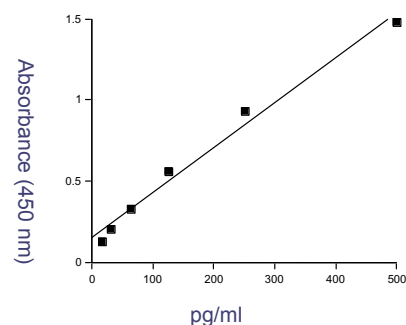
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



### Typical Standard Curves



IL-2

## mouse IL-4

**Cat. No. :** DKM010 (1x96wells)  
DKM010-2 (2x96wells)

**Specificity:** Detects natural and recombinant mouse IL-4.

**Sensitivity:** < 2 pg/ml

**Standard Range:** 4.6-150 pg/ml

**Total Assay Time:** 2 h 45 min

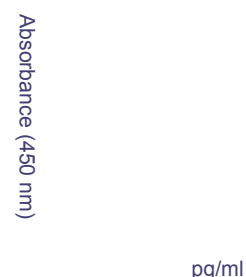
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



IL-4

## mouse IL-6

**Cat. No. :** DKM020 (1x96wells)  
DKM020-2 (2x96wells)

**Specificity:** Detects natural and recombinant mouse IL-4

**Sensitivity:** < 10 pg/ml

**Standard Range:** 15.6-500 pg/ml

**Total Assay Time:** 3 h 45 min

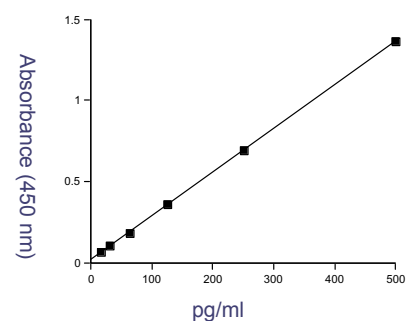
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

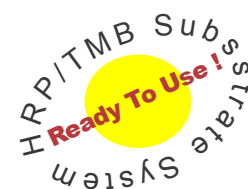
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



IL-6



**mouse IL-10**

**Cat. No. :** DKM030 (1x96 wells)  
DKM030-2 (2x96 wells)

**Specificity:** Detects natural and recombinant mouse IL-10.

**Sensitivity:** < 10 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

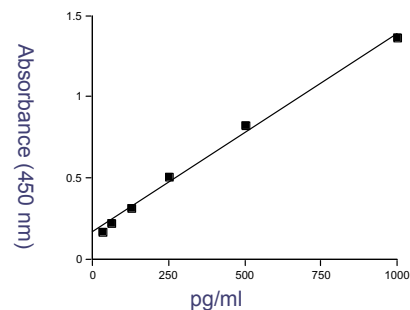
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



**Typical Standard Curves**



**IL-10**

**mouse TNF-α**

**Cat. No. :** DKM040 (1x96 wells)  
DKM040-2 (2x96 wells)

**Specificity:** Detects natural and recombinant mouse TNF-α.

**Sensitivity:** < 25 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

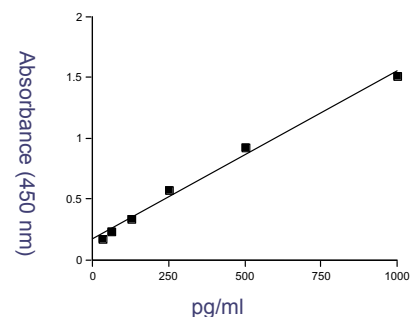
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



**TNF-α**

**mouse GM-CSF**

**Cat. No. :** DKM060 (1x96wells)  
DKM060-2 (2x96wells)

**Specificity:** Detects natural and recombinant mouse GM-CSF.

**Sensitivity:** < 9 pg/ml

**Standard Range:** 15.6-500 pg/ml

**Total Assay Time:** 3 h 45 min

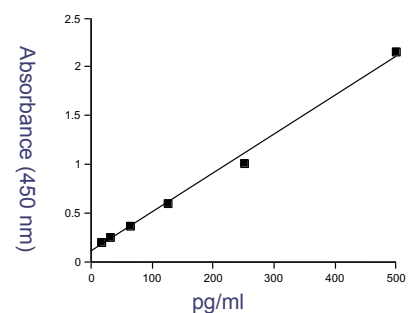
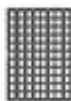
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



**GM-CSF**

**mouse IFN-γ**

**Cat. No. :** DKM050 (1x96 wells)  
DKM050-2 (2x96 wells)

**Specificity:** Detects natural and recombinant mouse IFN-γ.

**Sensitivity:** < 15 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

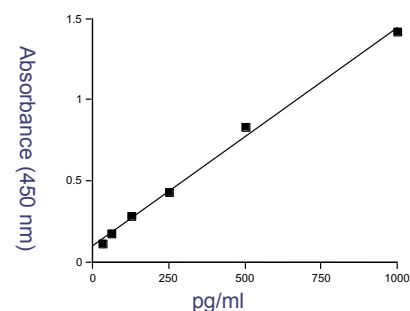
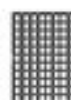
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



**IFN-γ**

# Rat Cytokines

## rat IL-4

**Cat. No. :** DKR020 (1x96wells)  
DKR020-2 (2x96wells)

**Specificity:** Detects natural and recombinant rat IL-4.

**Sensitivity:** < 15 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 4 h 45 min

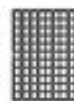
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

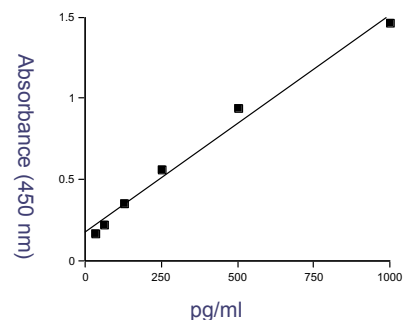
**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



## Typical Standard Curves



IL-4

## rat TNF-α

**Cat. No. :** DKR000 (1x96wells)  
DKR000-2 (2x96wells)

**Specificity:** Detects natural and recombinant rat TNF-α.

**Sensitivity:** < 15 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

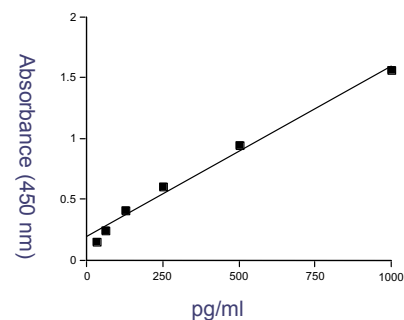
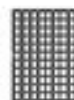
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



TNF-α

## rat IFN-γ

**Cat. No. :** DKR010 (1x96 wells)  
DKR010-2 (2x96 wells)

**Specificity:** Detects natural and recombinant rat IFN-γ.

**Sensitivity:** < 10 pg/ml

**Standard Range:** 31.25-1000 pg/ml

**Total Assay Time:** 3 h 45 min

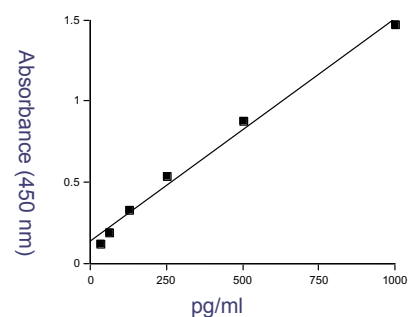
**Sample Volume:** 100 µl

**Sample Material:** Serum, cell culture supernatant

**Detection System:** Streptavidin-HRP/TMB

**Wavelength:** 450 nm

**Storage and Stability:** The kit is stable at 4°C until expiry date



IFN-γ

# ELISA Kit at a glance

<i>Catalog n.</i>	<i>Specificity</i>	<i>Human Reagents</i>	<i>Format</i>
DKH740	Human CD95 / sFAS		1 x 96
DKH740-2	Human CD95 /sFAS		2 x 96
DKH750	Human CD178 / sFAS-Ligand		1 x 96
DKH750-2	Human CD178 / sFAS-Ligand		2 x 96
DKH630	Human sp53		1 x 96
DKH630-2	Human sp53		2 x 96
DKH770	Human Trail / APO2L		1 x 96
DKH770-2	Human Trail / APO2L		2 x 96
DKH005	Human IL-1 alpha		1 x 96
DKH005-2	Human IL-1 alpha		2 x 96
DKH006	Human IL-1 beta		1 x 96
DKH006-2	Human IL-1 beta		2 x 96
DKH010	Human IL-2		1 x 96
DKH010-2	Human IL-2		2 x 96
DKH020	Human IL-4		1 x 96
DKH020-2	Human IL-4		2 x 96
DKH025	Human IL-5		1 x 96
DKH025-2	Human IL-5		2 x 96
DKH030	Human IL-6		1 x 96
DKH030-2	Human IL-6		2 x 96
DKH035	Human IL-6 high sensitivity		1 x 96
DKH035-2	Human IL-6 high sensitivity		2 x 96
DKH040	Human IL-7		1 x 96
DKH040-2	Human IL-7		2 x 96
DKH050	Human IL-8		1 x 96
DKH050-2	Human IL-8		2 x 96
DKH060	Human IL-10		1 x 96
DKH060-2	Human IL-10		2 x 96
DKH070	Human IL-12/p70		1 x 96
DKH070-2	Human IL-12/p70		2 x 96
DKH075	Human IL-12/p40 + p70		1 x 96
DKH075-2	Human IL-12/p40 + p70		2 x 96
DKH080	Human IL-13		1 x 96
DKH080-2	Human IL-13		2 x 96
DKH110	Human IL-18		1 x 96
DKH110-2	Human IL-18		2 x 96
DKH000	Human IFN-gamma		1 x 96
DKH000-2	Human IFN-gamma		2 x 96
DKH090	Human TNF-alpha		1 x 96
DKH090-2	Human TNF-alpha		2 x 96
DKH500	Human sIL-2R/sCD25		1 x 96
DKH500-2	Human sIL-2R/sCD25		2 x 96
DKH660	Human sGM-CSF R/sCD116		1 x 96
DKH660-2	Human sGM-CSF R/sCD116		2 x 96
DKH700	Human sc-KIT/sCD117		1 x 96
DKH700-2	Human sc-KIT/sCD117		2 x 96
DKH670	Human sIL-4R/sCD124		1 x 96
DKH670-2	Human sIL-4R/sCD124		2 x 96
DKH510	Human sIL-6R/sCD126		1 x 96
DKH510-2	Human sIL-6R/sCD126		2 x 96
DKH520	Human sgp130/sCD130		1 x 96
DKH520-2	Human sgp130/sCD130		2 x 96

<b>Catalog n.</b>	<b>Specificity</b>	<b>Format</b>
DKH710	Human PECAM-1/sCD31	1 x 96
DKH710-2	Human PECAM-1/sCD31	2 x 96
DKH570	Human sPgp-1/sCD44	1 x 96
DKH570-2	Human sPgp-1/sCD44	2 x 96
DKH560	Human sICAM-3/sCD50	1 x 96
DKH560-2	Human sICAM-3/sCD50	2 x 96
DKH540	Human sICAM-1/sCD54	1 x 96
DKH540-2	Human sICAM-1/sCD54	2 x 96
DKH530	Human ELAM-1/sCD62E	1 x 96
DKH530-2	Human ELAM-1/sCD62E	2 x 96
DKH650	Human ELAM-1/sCD62L	1 x 96
DKH650-2	Human ELAM-1/sCD62L	2 x 96
DKH550	Human sICAM-2/sCD102	1 x 96
DKH550-2	Human sICAM-2/sCD102	2 x 96
DKH580	Human sVCAM-1/sCD106	1 x 96
DKH580-2	Human sVCAM-1/sCD106	2 x 96
DKH730	Human sCD21	1 x 96
DKH730-2	Human sCD21	2 x 96
DKH590	Human sCD86	1 x 96
DKH590-2	Human sCD86	2 x 96
DKH640	Human SYNDECAN-1/sCD138	1 x 96
DKH640-2	Human SYNDECAN-1/sCD138	2 x 96
DKH720	Human THROMBOMODULIN/sCD141	1 x 96
DKH720-2	Human THROMBOMODULIN/sCD141	2 x 96

#### **Murine Reagents**

DKM000	Murine IL-2	1 x 96
DKM000-2	Murine IL-2	2 x 96
DKM010	Murine IL-4	1 x 96
DKM010-2	Murine IL-4	2 x 96
DKM020	Murine IL-6	1 x 96
DKM020-2	Murine IL-6	2 x 96
DKM060	Murine GM-CSF	1 x 96
DKM060-2	Murine GM-CSF	2 x 96
DKM050	Murine IFN-gamma	1 x 96
DKM050-2	Murine IFN-gamma	2 x 96
DKM040	Murine TNF-alpha	1 x 96
DKM040-2	Murine TNF-alpha	2 x 96

#### **Rat Reagents**

DKR020	Rat IL-4	1 x 96
DKR020-2	Rat IL-4	2 x 96
DKR000	Rat TNF-alpha	1 x 96
DKR000-2	Rat TNF-alpha	2 x 96
DKR010	Rat IFN-gamma	1 x 96
DKR010-2	Rat IFN-gamma	2 x 96

# ELISA Reagent Set

Matched- Antibody Pairs and Detection Reagents developed to build up in-house ELISA assays with the same quality, sensitivity and performances as the EuroClone ELISA kit.

EuroClone Reagent Set include:

- ⊙ Coating Antibody
- ⊙ Biotinylated- Detection Antibody
- ⊙ HRP conjugated Streptavidin
- ⊙ Ready-to-Use TMB Substrate

## Human Reagent Set

### human IL-1 $\alpha$ Reagent Set

<b>Cat. No. :</b>	DRH600	(5x96 wells)
	DRH600-10	(10x96 wells)
	DRH600-15	(15x96 wells)
	DRH600-20	(20x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-1 $\alpha$   
No cross reactivity with other human cytokines detected

**Sensitivity:** < 10 pg/ml

**Standard Range:** 31.2-1000 pg/ml

**Storage and Stability:** Stable one year at 4°C from reconstitution date of lyophilized reagent



All EuroClone Reagent Set are now available in 5, 10, 15, and 20 x 96 well-plate format, including the corresponding number of lyophilized antigen vials in order to perform one standard curve each plate.

### human IL-1 $\beta$ Reagent Set

<b>Cat. No. :</b>	DRH610	(5x96 wells)
	DRH610-10	(10x96 wells)
	DRH610-15	(15x96 wells)
	DRH610-20	(20x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-1 $\beta$   
No cross reactivity with other human cytokine detected

**Sensitivity:** < 5 pg/ml

**Standard Range:** 15.6-500 pg/ml

**Storage and Stability:** Stable one year at 4°C from reconstitution date of lyophilized reagent



### human IL-2 Reagent Set

<b>Cat. No. :</b>	DRH500	(5x96 wells)
	DRH500-10	(10x96 wells)
	DRH500-15	(15x96 wells)
	DRH500-20	(20x96 wells)

**Specificity:** Detects natural and recombinant soluble human IL-2  
No cross reactivity with other human cytokines detected

**Sensitivity:** < 10 pg/ml

**Standard Range:** 31.2-1000 pg/ml

**Storage and Stability:** Stable one year at 4°C from reconstitution date of lyophilized reagent



### human sCD25 / sIL-2R Reagent Set

<b>Cat. No. :</b>	DRH650	(5x96 wells)
	DRH650-10	(10x96 wells)
	DRH650-15	(15x96 wells)
	DRH650-20	(20x96 wells)

**Specificity:** Detects natural and recombinant soluble human soluble IL-2R  
No cross reactivity with other human soluble receptor detected

**Sensitivity:** < 8pg/ml

**Standard Range:** 68.75-2220 pg/ml

**Storage and Stability:** Stable one year at 4°C from reconstitution date of lyophilized reagent



**human IL-4 Reagent Set**

Cat. No. :	DRH510	(5x96 wells)
	DRH510-10	(10x96 wells)
	DRH510-15	(15x96 wells)
	DRH510-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human IL-4  
No cross reactivity with other human cytokines detected

Sensitivity: < 0.5 pg/ml

Standard Range: 1.1-35 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

**human IL-5 Reagent Set**

Cat. No. :	DRH660	(5x96 wells)
	DRH660-10	(10x96 wells)
	DRH660-15	(15x96 wells)
	DRH660-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human IL-5

Sensitivity: < 5 pg/ml

Standard Range: 7.8-250 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



All EuroClone Reagent Set are now available in 5, 10, 15, and 20 x 96 well-plate format, including the corresponding number of lyophilized antigen vials in order to perform one standard curve each plate.

**human IL-6 Reagent Set**

Cat. No. :	DRH520	(5x96 wells)
	DRH520-10	(10x96 wells)
	DRH520-15	(15x96 wells)
	DRH520-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human IL-6  
No cross reactivity with other human cytokines or soluble receptor gp80 detected.

Sensitivity: < 5 pg/ml

Standard Range: 15.6-500 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

**human IL-7 Reagent Set**

Cat. No. :	DRH680	(5x96wells)
	DRH680-10	(10x96wells)
	DRH680-15	(15x96wells)
	DRH680-20	(20x96wells)

Specificity: Detects natural and recombinant soluble human IL-7  
No cross reactivity with other human cytokines detected.

Sensitivity: < 6.25 pg/ml

Standard Range: 6.25-200 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

**human IL-8 Reagent Set**

Cat. No. :	DRH530	(5x96wells)
	DRH530-10	(10x96wells)
	DRH530-15	(15x96wells)
	DRH530-20	(20x96wells)

Specificity: Detects natural and recombinant soluble human IL-8  
No cross reactivity with other human cytokines detected

Sensitivity: < 25 pg/ml

Standard Range: 62.5-2000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



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**human IL-10 Reagent Set**

Cat. No. :	DRH540	(5x96wells)
	DRH540-10	(10x96wells)
	DRH540-15	(15x96wells)
	DRH540-20	(20x96wells)

Specificity: Detects natural and recombinant soluble human IL-10  
No cross reactivity with other human cytokines or viral IL-10. The assay is tested against simian IL-10.

Sensitivity: < 5 pg/ml  
Standard Range: 12.5-400 pg/ml  
Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



**human IL-12p70 Reagent Set**

Cat. No. :	DRH550	(5x96 wells)
	DRH550-10	(10x96 wells)
	DRH550-15	(15x96 wells)
	DRH550-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human IL-12 p70 heterodimer. No cross reactivity with other human cytokines detected.

Sensitivity: < 3 pg/ml  
Standard Range: 6.25-200 pg/ml  
Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



**human IL-13 Reagent Set**

Cat. No. :	DRH630	(5x96wells)
	DRH630-10	(10x96wells)
	DRH630-15	(15x96wells)
	DRH630-20	(20x96wells)

Specificity: Detects natural and recombinant soluble human IL-13  
No cross reactivity with other human cytokines

Sensitivity: < 1.5 pg/ml  
Standard Range: 3.12-100 pg/ml  
Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

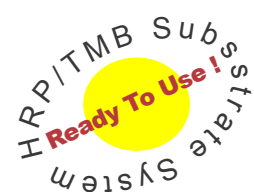


**human TNF-α Reagent Set**

Cat. No. :	DRH570	(5x96 wells)
	DRH570-10	(10x96 wells)
	DRH570-15	(15x96 wells)
	DRH570-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human TNF-α  
No cross reactivity with other human cytokines or soluble TNFR-  
I and II. The assay is tested against macac TNF-α. No cross reactivity with other human cytokines detected.

Sensitivity: < 10 pg/ml  
Standard Range: 3.12-100 pg/ml  
Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



**human IFN-γ Reagent Set**


Cat. No. :	DRH560	(5x96 wells)
	DRH560-10	(10x96 wells)
	DRH560-15	(15x96 wells)
	DRH560-20	(20x96 wells)

Specificity: Detects natural and recombinant soluble human IFN-γ  
No cross reactivity with other human cytokines. The assay is tested against simian IFN-γ.


Sensitivity: < 5 pg/ml  
Standard Range: 12.5-400 pg/ml  
Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent




**human sCD54/ICAM-1 Reagent Set**

Cat. No. :	DRH590	(5x96 wells)
	DRH590-10	(10x96 wells)
	DRH590-15	(15x96 wells)
	DRH590-20	(20x96 wells)
Specificity:	Detects natural and recombinant soluble human soluble ICAM-1. No cross reactivity with other human adhesion molecules detected	
Sensitivity:	< 0.1 ng/ml	
Standard Range:	0.25-8 ng/ml	
Storage and Stability:	Stable one year at 4°C from reconstitution date of lyophilized reagent	


**human sCD62E/ELAM Reagent Set**

Cat. No. :	DRH580	(5x96 wells)
	DRH580-10	(10x96 wells)
	DRH580-15	(15x96 wells)
	DRH580-20	(20x96 wells)
Specificity:	Detects natural and recombinant soluble human soluble ELAM-1. No cross reactivity with other human adhesion molecules detected	
Sensitivity:	< 0.5 ng/ml	
Standard Range:	1.0-32 ng/ml	
Storage and Stability:	Stable one year at 4°C from reconstitution date of lyophilized reagent	

**human CD106/sVCAM-1 Reagent Set**

Cat. No. :	DRH660	(5x96 wells)
	DRH660-10	(10x96 wells)
	DRH660-15	(15x96 wells)
	DRH660-20	(20x96 wells)
Specificity:	Detects natural and recombinant soluble human soluble VCAM-1. No cross reactivity with other human adhesion molecules detected.	
Sensitivity:	< 0.6 ng/ml	
Standard Range:	1.56-50 ng/ml	
Storage and Stability:	Stable one year at 4°C from reconstitution date of lyophilized reagent	

**human CD138 / sSYNDECAN-1 Reagent Set**

Cat. No. :	DRH620	(5x96 wells)
	DRH620-10	(10x96 wells)
	DRH620-15	(15x96 wells)
	DRH620-20	(20x96 wells)
Specificity:	Detects natural and recombinant soluble human soluble syndecan-1. No cross reactivity with other human adhesion molecules detected	
Sensitivity:	< 2.56 ng/ml	
Standard Range:	8-256 ng/ml	
Storage and Stability:	Stable one year at 4°C from reconstitution date of lyophilized reagent	

## Murine Reagent Set

### murine IL-2 Reagent Set

Cat. No. :	DRM000	(5x96 wells)
	DRM000-10	(10x96 wells)
	DRM000-15	(15x96 wells)
	DRM000-20	(20x96 wells)

Specificity: Detects natural and recombinant mouse IL-2

Sensitivity: < 7 pg/ml

Standard Range: 31.25-1000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



### murine IL-6 Reagent Set

Cat. No. :	DRM020	(5x96wells)
	DRM020-10	(10x96 wells)
	DRM020-15	(15x96 wells)
	DRM020-20	(20x96 wells)

Specificity: Detects natural and recombinant mouse IL-4

Sensitivity: < 10 pg/ml

Standard Range: 15.6-500 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



### murine IL-10 Reagent Set

Cat. No. :	DRM030	(5x96 wells)
	DRM030-10	(10x96 wells)
	DRM030-15	(15x96 wells)
	DRM030-20	(20x96 wells)

Specificity: Detects natural and recombinant mouse IL-10

Sensitivity: < 10 pg/ml

Standard Range: 31.25-1000 pg/ml

Total Assay Time: 3 h 45 min

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



### murine GM-CSF Reagent Set

Cat. No. :	DRM060	(5x96 wells)
	DRM060-10	(10x96 wells)
	DRM060-15	(15x96 wells)
	DRM060-20	(20x96 wells)

Specificity: Detects natural and recombinant mouse GM-CSF

Sensitivity: < 9 pg/ml

Standard Range: 15.6-500 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



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### murine IFN- $\gamma$ Reagent Set

Cat. No. :	DRM050	(5x96 wells)
	DRM050-10	(10x96 wells)
	DRM050-15	(15x96 wells)
	DRM050-20	(20x96 wells)

Specificity: Detects natural and recombinant mouse IFN- $\gamma$

Sensitivity: < 15 pg/ml

Standard Range: 31.25-1000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent



## Rat Reagent Set

### rat IL-4 Reagent Set

Cat. No. :	DRR020	(5x96 wells)
	DRR020-10	(10x96 wells)
	DRR020-15	(15x96 wells)
	DRR020-20	(20x96 wells)

Specificity: Detects natural and recombinant rat IL-4



Sensitivity: < 15 pg/ml

Standard Range: 31.25-1000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

### rat IFN- $\gamma$ Reagent Set

Cat. No.	DRR000	(5x96wells)
	DRR000-10	(10x96 wells)
	DRR000-15	(15x96 wells)
	DRR000-20	(20x96 wells)

Specificity: Detects natural and recombinant rat TNF- $\alpha$



Sensitivity: < 15 pg/ml

Standard Range: 31.25-1000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

### rat TNF- $\alpha$ Reagent Set

Cat. No. :	DRR010	(5x96 wells)
	DRR010-10	(10x96 wells)
	DRR010-15	(15x96 wells)
	DRR010-20	(20x96 wells)

Specificity: Detects natural and recombinant rat IFN- $\gamma$



Sensitivity: < 10 pg/ml

Standard Range: 31.25-1000 pg/ml

Storage and Stability: Stable one year at 4°C from reconstitution date of lyophilized reagent

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# Technical Notes

## ELISA Immunoassay

### Introduction

Enzyme Linked Immunosorbent Assays (ELISA) are primarily used to determine antigen concentrations in unknown samples. Two-antibody based assays are quick and accurate, and when a source of pure antigen is available, this type assay can be transformed to define the absolute amounts of antigen.

Sandwich ELISA requires the use of two antibodies that recognize and bind non overlapping epitopes on the antigen. To this end, either two monoclonal antibodies that recognize discrete sites or one batch of affinity purified polyclonal antibodies can be used.

Usually, one purified antibody is bound to a solid phase, i.e. wells of ELISA-grade plastic microplates or strips (step 1), antigen is allowed to bind in a test solution and unbound proteins are then removed by serial washing (step 2). A second labelled antibody is subsequently added to the assay and allowed to bind to the antigen (step 3). Again, unbound proteins are removed by extensive washing. The amount of antigen is finally quantitated by measuring the amount of labeled antibody that is bound to the matrix (step 4).

Either biotinylated secondary antibodies or enzyme conjugated antibodies can be employed, depending on the sensibility to be achieved. A proper detection method should be then used to quantitate the amount of bound secondary antibody. Biotin-labeled antibodies are detected by using Streptavidin. This protein binds tightly to biotin, forming an irreversible complex. Streptavidin is conventionally labeled with enzymes such as Alkaline Phosphatase (AP) or Peroxidase (HRP) which can be used to convert chromogenic substrates. Conventionally, in those assays that are carried out in microtiter wells, soluble chromogenic substrates which are converted to a soluble colored product are used. The enzyme levels are measured by monitoring the color development and reading the absorbance of the single well by using a spectrophotometer. The most sensitive chromogenic substrate for the detection of horseradish peroxidase (HRP)-labeled reagents is tetramethylbenzidine (TMB). Metabolized TMB turns to a pale blue. Usually, to enhance the final color reaction, the enzyme activity is blocked by adding excess  $H_2SO_4$ , this turns positive wells to a bright yellow color. Results are obtained by reading wells absorbance at 450 nm. The best substrate for AP is paranitrophenylphosphate (pNPP). An EDTA based stopping solution is used to turn metabolized pNPP to a bright yellow as well as for TMB.

Many ELISA washers and readers are also commercially available (Euroclone codes EP-HPW08-240; EP-HPW12-240; EP-RD08-240; EP-RD12-240) which allow to automate most of the procedure by using 96 wells plate. Data storage and reanalysis are greatly simplified when a computer and an ELISA analyzing software are introduced in this system.

### Application Notes: Using Sandwich ELISA Immunoassay for Cytokines and Chemokines quantitation.

Cytokine sandwich ELISA are highly specific because antibodies directed against two or more distinct cytokines epitopes are required. Therefore, sandwich ELISA can discriminate between cytokines that might have overlapping biological functions which cannot be solved in a biological assay. Although cytokine sandwich ELISA are very useful for cytokine detection and measurement, they do not provide direct information on the identities and frequencies of individual cytokine producing cells.

In addition, when designing experiments that involve cytokine and chemokine protein measurements using sandwich ELISA, several key factors must be carefully considered:

Cytokine production by stimulated cell populations is transient and the kinetics of expression of different cytokine genes can vary. For these reasons, it is required to collect test samples at different time points to better characterize the kinetic of cytokine-production by a cultured cell population.

Cytokine protein concentrations, measured at any one time point, may reflect simultaneous processes of secretion, uptake by cells and degradation. For these reasons, the level of cytokine protein measured by ELISA may significantly underestimate the cytokine-producing potential of cells. In such cases, the use of complementary techniques such as multi-probe ribonuclease protection assay or intracellular cytokine staining might be required.

# Technical Notes

The levels of cytokine detected by ELISA may or may not correlate directly with the levels of biologically active protein. Sandwich ELISA may, in fact, utilize anti-cytokine antibodies that cannot discriminate between the precursor (inactive) and mature (bioactive) forms of a cytokine. In addition, an ELISA may detect partially-degraded cytokine proteins which have retained their immunoreactive properties (i.e., at least two recognizable epitopes) but may have lost their bioactivity. In conclusion, cytokine sandwich ELISA are useful indicators of the presence and levels of cytokine and chemokine proteins but they do not actually provide information concerning their biological activity.

In addition to provide a rich source of information for clinical and research studies, sandwich ELISA for measuring cytokines and their receptors have become increasingly important as diagnostic tools and for monitoring therapeutic regimens, such as biological response modification regimens utilizing recombinant cytokine proteins. In the latter cases, highly optimized sandwich ELISA kits designed to minimize interference or nonspecific reactivities presented by patient samples are highly desirable.

## ELISA Protocol: General Procedure

### Capture antibody:

1. Dilute the purified capture antibody to 1-10 µg/ml in Coating Buffer (PBS pH 7.2). Add 100 µl of diluted antibody to the wells of an enhanced protein-binding ELISA plate (e.g., Nunc Maxisorp # 468667)
2. Seal plate to prevent evaporation. Incubate overnight at 4°C.

### Saturation:

3. Bring the plate to RT, remove the capture antibody solution, and block non-specific binding by adding 250 µl of Saturating Buffer per well.
4. Seal plate and incubate at RT for 2 hrs.
5. Wash 3 times with approximately 400 µl/well Wash Buffer.

### Standards and Samples:

6. Add standards and samples (diluted in Standard Diluent Buffer). Add 100 µl of diluted standards and controls, always in duplicate

### Detection antibody:

7. Dilute the biotinylated detection antibody to 0.5-2 µg/ml in Biotinylated Antibody Diluent Buffer. Add 50 µl of diluted antibody to each well.
8. Seal the plate and co-incubate the antigen and the detection antibody at RT for 2 hrs.
9. Wash 3 times with approximately 400 µl/well Wash Buffer.

### Streptavidin-Horseradish Peroxidase (HRP-Streptavidin):

10. Dilute HRP-Streptavidin conjugate to its pre-titered optimal concentration in Standard Dilution Buffer. Add 100 µl per well.
11. Seal the plate and incubate it at RT for 20-30 min.
12. Wash 3 times with approximately 400 µl/well Wash Buffer.

### Substrate:

13. Distribute 100 µl/well TMB "Ready-to-Use" Substrate Solution and incubate at RT (10-15 min) in the dark (wrap plate in aluminium foil) for color development. The color reaction can be stopped by adding 100 µl of Stop Solution (1M Sulfuric Acid).
14. Read absorbance at 450nm with a reference filter set to 630nm or 650 nm.

### Coating Buffer

PBS pH 7.2-7.4

### Washing Buffer

PBS pH 7.2-7.4, 0.05% tween-20

### Saturating Buffer

PBS pH 7.2-7.4, 5% BSA w/v

### Standard Dilution Buffer

PBS pH 7.2-7.4, 1% BSA w/v

### Biotinylated Ab Dilution Buffer

PBS pH 7.2-7.4, 1% BSA w/v

### HRP-Streptavidin Dilution Buffer

PBS pH 7.2-7.4, 0.1% tween-20 and 1% BSA w/v

# Technical Notes

## ELISA Specimen Collection, processing and Storage

Cell Culture Supernatants: Remove particulates and aggregates by spinning samples at approximately 1000xg for 10 min.

Serum: avoid any intentional stimulation of the cells by the procedure. Use pyrogen/endotoxin free collection tubes. Serum should be removed rapidly and carefully after clotting by spinning at 1000xg for 10 min.

Storage: If not analyzed shortly after collection, samples should be aliquoted (0.2-0.5 ml) and stored frozen at -70°C. Avoid multiple freezing-thawing cycles of frozen specimens.

When possible, avoid the use of badly hemolyzed or lipemic sera. Always remove particles by centrifugation or filtration before to assay. Do not thaw reagents by heating at 37 or 56°C. Let samples and reagents to warm at room temperature. Lyophilized Standards should be discarded after use.

## ELISA Helpful Hints

To determine the optimal signal and lowest background for the ELISA, the capture antibody (1-10 µg/ml) and detection antibody (0.25-5 µg/ml) should be titrated against each other in a preliminary experiment. An appropriate range of serial dilutions for the cytokine standard should be included. A suggested range is provided on the Data Sheet for either ELISA kits and matched reagents.

Handling of Standard Reagents: Check carefully the Data Sheet for each recombinant cytokine provided as standard within ELISA kit. Handling instructions are lot-specific. For maximum recovery of cytokine, add the indicated volume of Standard Dilution Buffer and allow to stand 5 minutes with gentle swirling before making dilutions. Serial dilutions of the standard must be always made before each assay and cannot be stored.

High backgrounds in blank wells (i.e., OD > 0.20) or poor consistency of replicates can be overcome by increasing the stringency of washes and optimizing the concentration of capture and detection antibodies. For example, during washes, the wells can be soaked for ~ 1 minute intervals. Moreover, lower concentrations of detecting antibody or more washes after the detecting antibody stage can reduce background.

Using peroxidase as the enzyme for color development, absolutely avoid sodium azide in wash buffers and diluents, as this is a strong inhibitor of peroxidase activity.

If no signal is observed check the activity of the enzyme/substrate system by mixing Streptavidin-HRP and TMB substrate.

## References

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