abcam

Product datasheet

Mouse IL-6 ELISA Kit ab222503

リコンビナント SimpleStep ELISA

★★★★★ 2 Abreviews 79 References 画像数 9

製品の概要

製品名 Mouse IL-6 ELISA Kit

検出方法 Colorimetric

再現性

Intra-Assay（同時再現性）

サンプル	N	平均値	SD	CV%
Spleen CCS	5			3.9%

Inter-Assay（日差再現性）

サンプル	N	平均値	SD	CV%
Spleen CCS	3			3.4%

サンプルの種類 Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

アッセイタイプ Sandwich (quantitative)

検出感度 11.3 pg/ml

検出範囲 15.6 pg/ml - 1000 pg/ml

添加回収試験

特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Serum	107	103% - 114%
Cell culture media	100	89% - 112%
Hep Plasma	98	95% - 103%
EDTA Plasma	112	109% - 116%
Cit plasma	99	96% - 102%

全工程の試験時間 1h 30m

ステップ One step assay

種交差性

交差種: Mouse

製品の概要

Mouse IL-6 ELISA Kit (ab222503) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-6 protein in cell culture supernatant, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse IL-6 with 11.3 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

ASSAY SPECIFICITY

This kit recognizes both native and recombinant mouse IL-6 protein in serum, plasma, and cell culture supernatant samples only. Cell and tissue extract samples have not been tested with this kit.

SPECIES REACTIVITY

This kit recognizes mouse and rat IL-6 protein.

Rat IL-6 protein was measured at 250pg/mL and 100% cross reactivity was observed. Human IL-6 protein was measured at 1000pg/mL no cross reactivity was observed.

特記事項

Interleukin 6 (IL-6) is a cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells. IL-6 is involved in lymphocyte and monocyte differentiation and IL-6 induces myeloma and plasmacytoma growth as well as nerve cells differentiation. B-cells, T-cells, hepatocytes, hematopoeitic progenitor cells and cells of the CNS are all responsive to IL-6. IL-6 is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

Store at +4°C. Please refer to protocols.

内容	1 x 96 tests	10 x 96 tests	1 x 384 tests
10X Mouse IL-6 Capture Antibody	1 x 600µl	10 x 600µl	1 x 600µl
10X Mouse IL-6 Detector Antibody	1 x 600µl	10 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	0 x 0 unit	1 unit
Antibody Diluent 4BR	1 x 6ml	10 x 6ml	1 x 6ml
Mouse IL-6 Lyophilized Recombinant Protein	2 vials	2 x 10 vials	2 vials
Plate Seals	1 unit	10 units	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml	2 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	10 units	0 x 0 unit
Stop Solution	1 x 12ml	1 x 120ml	2 x 12ml
TMB Development Solution	1 x 12ml	1 x 120ml	2 x 12ml

機能

Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into Ig-secreting cells Involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and induces nerve cells differentiation Acts on B-cells, T-cells, hepatocytes, hematopoeitic progenitor cells and cells of the CNS. Also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.

関連疾患

Genetic variations in IL6 are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis.
Note=A IL6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in HIV-infected men.

配列類似性

Belongs to the IL-6 superfamily.

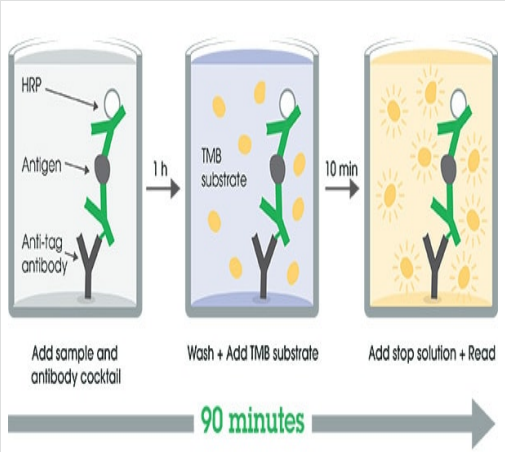
翻訳後修飾

N- and O-glycosylated.

細胞内局在

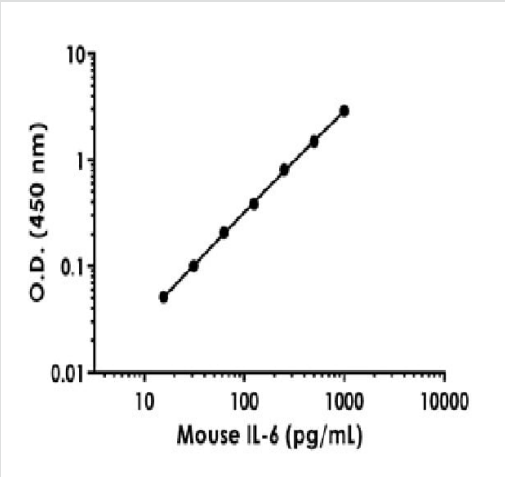
Secreted.

画像



SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Mouse IL-6 ELISA Kit (ab222503)



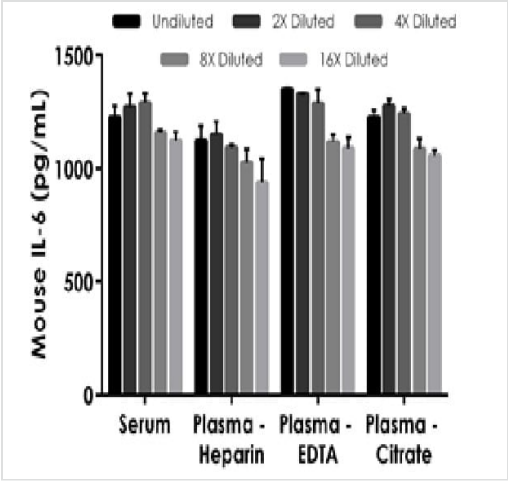
The IL-6 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse IL-6 standard curve.

Standard Curve Measurements			
Concentration (pg/mL)	O.D 450 nm		Mean O.D
	1	2	
0	0.058	0.049	0.053
15.6	0.134	0.106	0.105
31.3	0.155	0.154	0.154
62.5	0.261	0.260	0.260
125	0.417	0.461	0.439
250	0.834	0.897	0.865
500	1.485	1.604	1.544
1,000	2.930	2.956	2.943

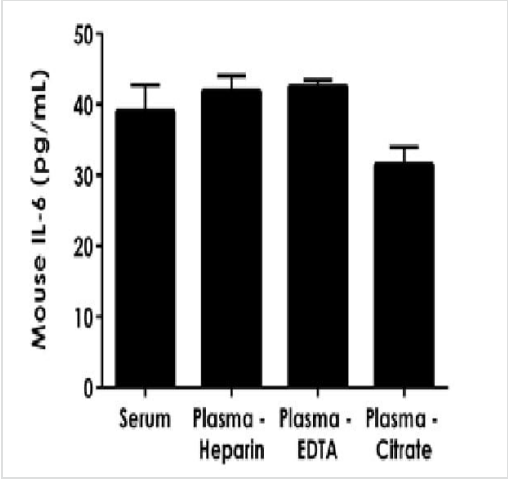
Example of mouse IL-6 standard curve. The IL-6 standard curve was prepared as described. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of mouse IL-6 standard curve.



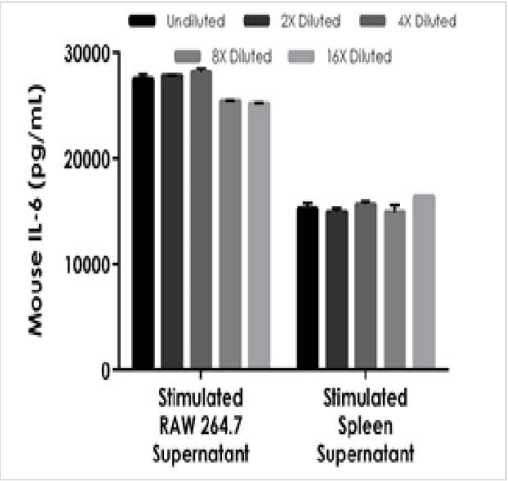
Interpolated concentrations of spiked IL-6 in mouse serum and plasma samples.

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (heparin) 50%, plasma (EDTA) 50% and plasma (citrate) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of native IL-6 in mouse serum and plasma samples.

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 50%, plasma (heparin) 50%, plasma (EDTA) 50% and plasma (citrate) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-6 concentration was determined to be 39 pg/mL in serum, 42 pg/mL in plasma (heparin), 43 pg/mL in plasma (EDTA), and 32 pg/mL in plasma (citrate).



Interpolated concentrations of native IL-6 in mouse cell culture supernatant samples.

The concentrations of IL-6 were measured in duplicates, interpolated from the IL-6 standard curves and corrected for sample dilution. Undiluted samples are as follows: stimulated RAW264.7 cell culture supernatant 1:50 and stimulated spleen cell culture supernatant 1:16. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-6 concentration was determined to be 26,793 pg/mL in stimulated RAW264.7 cell culture supernatant, and 15,127 pg/mL in stimulated spleen cell culture supernatant.

Dilution Factor	Interpolated value	50% Mouse Serum	50% Mouse Plasma (Citrate)	50% Mouse Plasma (EDTA)	50% Mouse Plasma (Heparin)
Undiluted	pg/mL	612	612	675	562
	% Expected value	100	100	100	100
2	pg/mL	318	319	332	287
	% Expected value	104	104	99	102
4	pg/mL	161	155	161	137
	% Expected value	105	102	95	97
8	pg/mL	73	68	70	64
	% Expected value	95	89	83	91
16	pg/mL	35	33	34	29
	% Expected value	92	86	81	84

Linearity of dilution.

Linearity of dilution is determined based on interpolated values from the standard curve. Linearity of dilution defines a sample concentration interval in which interpolated target concentrations are directly proportional to sample dilution.

Recombinant IL-6 was spiked into the following biological samples and diluted in a 2-fold dilution series in Sample Diluent NS.

Dilution Factor	Interpolated value	1:200 RAW264.7 Stimulated Cell Culture Supernatant	1:16 Spleen Stimulated Cell Culture Supernatant
Undiluted	pg/mL	137	973
	% Expected value	100	100
2	pg/mL	70	476
	% Expected value	97	98
4	pg/mL	35	240
	% Expected value	100	98
8	pg/mL	16	116
	% Expected value	93	95
16	pg/mL	8	58
	% Expected value	98	95

Linearity of dilution.

Native IL-6 was measured in the following biological samples in a 2-fold dilution series. Sample dilutions are made in Sample Diluent NS.

Sandwich ELISA - Mouse IL-6 ELISA Kit (ab222503)

To learn more about the advantages of recombinant antibodies see **here**.

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