abcam

Product datasheet

Mouse Eotaxin-2 ELISA Kit ab206985

Recombinant SimpleStep ELISA

1 References 8 Images

Overview

Product name Mouse Eotaxin-2 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%	
Overall	8			3.42%	

Inter-assay

Sample	n	Mean	SD	CV%	
Overall	3			4.66%	

Sample type Cell culture supernatant, Serum, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 6.23 pg/ml

Range 19.53 pg/ml - 1250 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	100	98% - 101%
Cell culture media	94	90% - 99%
EDTA Plasma	98	94% - 105%
Cit plasma	95	89% - 102%

Assay time 1h 30m

Assay duration One step assay **Species reactivity** Reacts with: Mouse

Product overview

Does not react with: Goat, Cow, Pig

Mouse Eotaxin-2 ELISA Kit (ab206985) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Eotaxin-2 protein in cell culture supernatant, cit plasma, edta plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Eotaxin-2 with 6.23 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

Eotaxin-2, also known as CCL24, MPIF-2 or $Ck\beta$ -6, is a C-C chemokine originally identified in activated monocytes. Eotaxin-2 is expressed in activated T lymphocytes, GM-CSF treated macrophages and dermal fibroblasts. Mouse eotaxin-2 is a highly glycosylated protein which requires maturation by removal of a 26 aminoacid signal peptide prior to secretion. Secretion of Eotaxin-2 is known to recruit and activate CCR3-bearing cells particularly eosinophils as well as basophils. Activation of eosinophils generates reactive oxygen species, lipid mediators of inflammation and degranulation of toxic granule proteins. Chemotaxis and activation of basophils, previously primed with IL-3, lead to release of histamine and leukotriene C4.

Platform

Microplate (12 x 8 well strips)

Properties

Storage instructions

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

Components	1 x 96 tests
10X Mouse Eotaxin-2 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI2	1 x 6ml
Mouse Eotaxin-2 Capture Antibody (lyophilized)	1 vial
Mouse Eotaxin-2 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml

Components	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

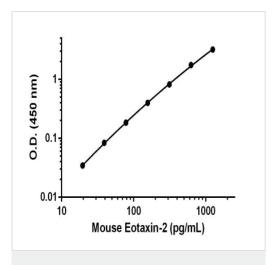
Relevance

Eotaxin 2 is a member of the CC chemokine family, based on the presence of the CC motif and homology with other known CC chemokines. Eotaxin 2 cDNA encodes a 119 amino acid residue precursor protein with a 26 amino acid residue signal peptide that is cleaved to generate a mature protein predicted to contain 93 amino acid residues with an N glycosylation site. Mature human eotaxin 2 has a predicted molecular mass of approximately 10.6 kDa. Compared to other CC chemokines, eotaxin 2 exhibits 40 %, 42 %, and 39 % amino acid identity to MCP3, MIP1 alpha, and eotaxin, respectively. Human CC chemokine eotaxin 2 maps to chromosome 7q11.23. Both eotaxin and eotaxin 2 activate and attract eosinophils and basophils. A receptor for human eotaxin has been identified and found to be the third numbered receptor in the C-C chemokine subfamily of receptors (CCR3. On eosinophils, the effects of eotaxin 2 is inhibited by an CCR3 antibody and cross-desensitized by eotaxin and MCP4, suggesting that all three CC chemokines act through CCR3. Eotaxin 2 mRNA is weakly expressed in activated monocytes and T lymphocytes. Recombinant eotaxin 2 induces chemotaxis of eosinophils, basophils, and resting T lymphocytes but not monocytes and activated T lymphocytes. Eotaxin 2 inhibits colony formation in myleloid progenitor cells.

Cellular localization

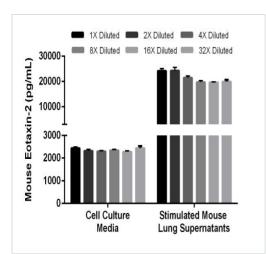
Secreted

Images

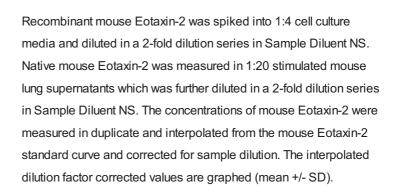


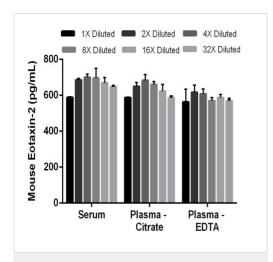
Example of the mouse Eotaxin-2 standard curve in Sample Diluent NS.

Background-subtracted data values (mean +/- SD) are graphed.



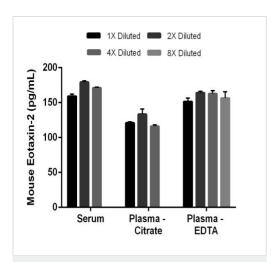
Linearity of dilution of mouse Eotaxin-2 in cell culture media and stimulated mouse lung supernatants.





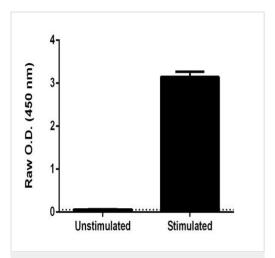
Spiked linearity of dilution of mouse Eotaxin-2 in normal serum and normal plasma samples.

Recombinant mouse Eotaxin-2 was spiked into neat serum, neat citrate plasma, and neat EDTA plasma diluted in a 2-fold dilution series in Sample Diluent NS. The concentrations of mouse Eotaxin-2 were measured in duplicate and interpolated from the mouse Eotaxin-2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are graphed (mean +/-SD).

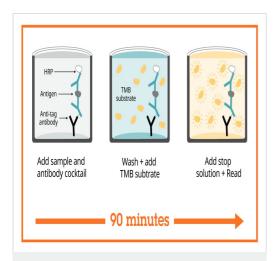


Native linearity of dilution of mouse Eotaxin-2 in normal serum and normal plasma samples.

Native mouse Eotaxin-2 was measured in neat normal serum, neat normal citrate plasma, and neat normal EDTA plasma diluted in a 2-fold dilution series in Sample Diluent NS. The concentrations of mouse Eotaxin-2 were measured in duplicate and interpolated from the mouse Eotaxin 2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are graphed (mean +/- SD). For reference, 8X or more diluted normal serum and normal citrate plasma samples interpolate below the standard curve. 16X or more diluted Normal EDTA plasma samples interpolate below the standard curve.

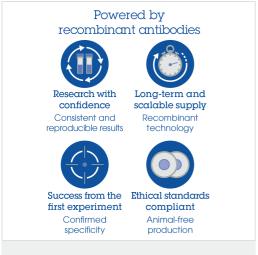


Assay specificity is demonstrated on mouse lung supernatants. Mouse lung supernatants were cultured in cell culture media with 10% fetal bovine serum for 3 days in the absence (unstimulated) and presence (stimulated) of 10 ng/mL of human IL-4. Both unstimulated and stimulated mouse lung supernatants were measured in duplicate at a 1:20 dilution. The Raw O.D. values for each sample are graphed, with the background O.D. shown as the dashed line. The stimulated mouse lung supernatants diluted 1:20 measured at 1,207 pg/mL, whereas the unstimulated mouse lung supernatants diluted 1:20 measured below the limit of detection of the assay.



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.

Sandwich ELISA - Mouse Eotaxin-2 ELISA Kit (ab206985)



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

Sandwich ELISA - Mouse Eotaxin-2 ELISA Kit (ab206985)



To learn more about the advantages of SimpleStep ELISA[®] kits see **here**.

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