

Mouse Angiopoietin-like 4 ELISA Kit ab210577

Recombinant SimpleStep ELISA[®]

[8 Images](#)

Overview

Product name Mouse Angiopoietin-like 4 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	5			3.7%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			6.6%

Sample type Cell culture supernatant, Cell culture extracts, Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 29 pg/ml

Range 117.2 pg/ml - 7500 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Tissue Extracts	108	105% - 114%
Cell culture media	103	98% - 109%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Mouse

Product overview Mouse Angiopoietin-like 4 ELISA Kit (ab210577) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Angiopoietin-like 4 protein in cell culture extracts, cell culture supernatant, and tissue extracts. It uses our proprietary SimpleStep ELISA[®] technology. Quantitate Mouse Angiopoietin-like 4 with 29 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.

Notes

Angiopoietin-like 4 (Angiopoietin-related protein 4,ANGPTL4) is a member of the ANGPTL family and structurally related to angiopoietins. Angiopoietin-like 4 is secreted and may also associate with the extracellular matrix. It is associated with angiogenesis and metastasis.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

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

Components	1 x 96 tests
10X Mouse Angiopoietin-related protein 4 Capture Antibody	1 x 600µl
10X Mouse Angiopoietin-related protein 4 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BR	1 x 6ml
Mouse Angiopoietin-related protein 4 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function

Protein with hypoxia-induced expression in endothelial cells. May act as a regulator of angiogenesis and modulate tumorigenesis. Inhibits proliferation, migration, and tubule formation of endothelial cells and reduces vascular leakage. May exert a protective function on endothelial cells through an endocrine action. It is directly involved in regulating glucose homeostasis, lipid metabolism, and insulin sensitivity. In response to hypoxia, the unprocessed form of the protein accumulates in the subendothelial extracellular matrix (ECM). The matrix-associated and immobilized unprocessed form limits the formation of actin stress fibers and focal contacts in the adhering endothelial cells and inhibits their adhesion. It also decreases motility of endothelial cells and inhibits the sprouting and tube formation.

Tissue specificity

Expressed at high levels in the placenta, heart, liver, muscle, pancreas and lung but expressed poorly in the brain and kidney.

Sequence similarities

Contains 1 fibrinogen C-terminal domain.

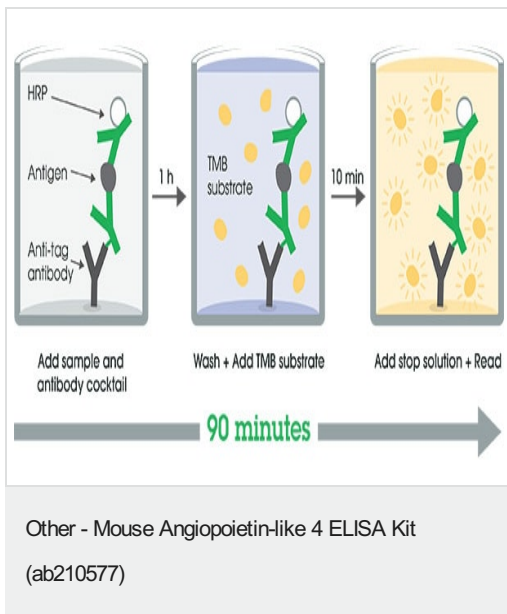
Post-translational modifications

N-glycosylated.

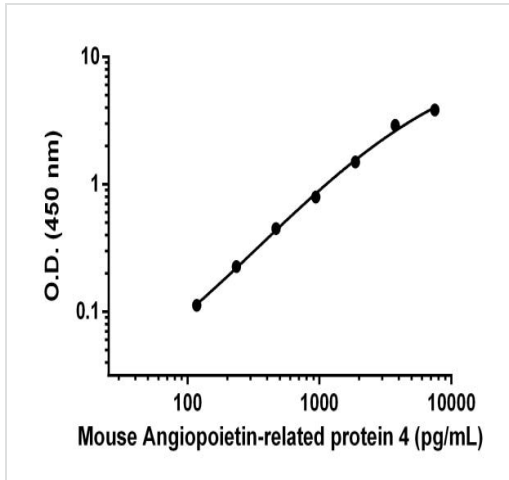
Cellular localization

Secreted. Secreted > extracellular space > extracellular matrix. The unprocessed form interacts with the extracellular matrix. This may constitute a dynamic reservoir, a regulatory mechanism of the bioavailability of ANGPTL4.

Images

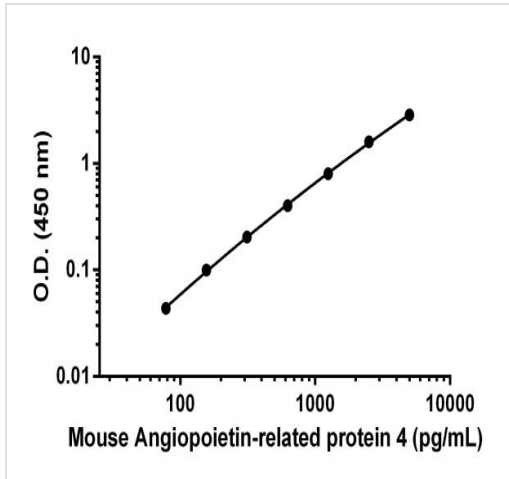


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



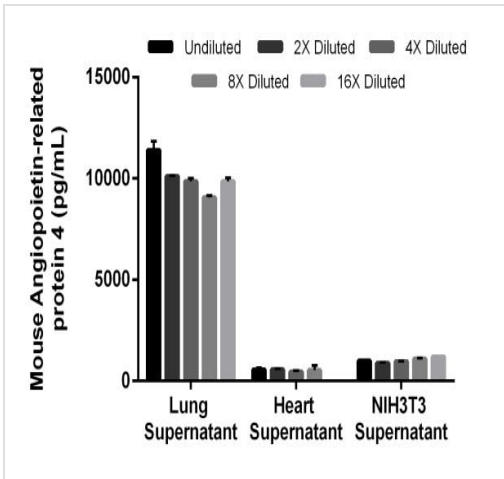
Background-subtracted data values (mean +/- SD) are graphed.

Example of Mouse Angiopoietin-related protein 4 standard curve in Sample Diluent NS.



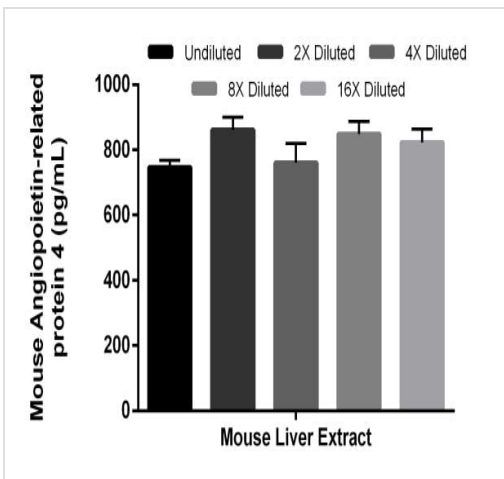
Background-subtracted data values (mean +/- SD) are graphed.

Example of Mouse Angiopoietin-related protein 4 standard curve in 1X Cell Extraction Buffer PTR.



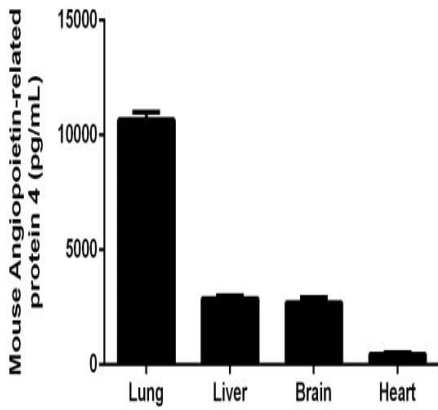
Interpolated concentrations of native Angiotensin-related protein 4 in mouse cell and tissue culture supernatant samples.

The concentrations of Angiotensin-related protein 4 were measured in duplicates, interpolated from the Angiotensin-related protein 4 standard curves and corrected for sample dilution. Undiluted samples are as follows: lung supernatant 20%, heart supernatant 50%, and NIH3T3 Supernatant 100%. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Angiotensin-related protein 4 concentration was determined to be 9,986 pg/mL in lung supernatant, 606 pg/mL in heart supernatant and 1,030 pg/mL in NIH3T3 cell culture supernatant.



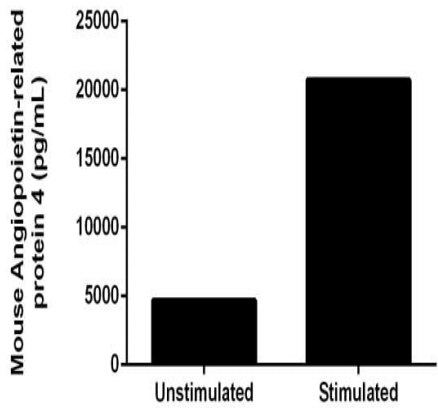
Interpolated concentrations of native Angiotensin-related protein 4 in mouse liver extract sample based on a 2,000 μ g/mL extract load.

The concentrations of Angiotensin-related protein 4 were measured in duplicate and interpolated from the Angiotensin-related protein 4 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, n=2). The mean Angiotensin-related protein 4 concentration was determined to be 748 pg/mL in mouse liver extract.



Interpolated concentrations of native Angiopoietin-related protein 4 in mouse tissue culture supernatant samples.

The concentrations of Angiopoietin-related protein 4 were measured in duplicates, interpolated from the Angiopoietin-related protein 4 standard curves and corrected for sample dilution. Undiluted samples are 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Angiopoietin-related protein 4 concentration was determined to be 10,668 pg/mL in lung supernatant, 2,884pg/mL in liver supernatant, 2,703pg/mL in brain supernatant and 456 pg/mL in heart supernatant.



Comparison of secreted Angiopoietin-related protein 4 in unstimulated and PDGF- stimulated NIH/3T3 supernatant.

NIH/3T3 cells were grown in the absence or presence of Platelet Derived Growth Factor (PDGF) for 24 hours. The concentrations of Angiopoietin-related protein 4 were measured in duplicates, interpolated from the Angiopoietin-related protein 4 standard curves and corrected for sample dilution. Undiluted samples are 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Angiopoietin-related protein 4 concentration was determined to be 4,704 pg/mL in unstimulated, 20,700 pg/ml in PDGF stimulated and undetectable in media.

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Consistent and reproducible results



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Recombinant technology



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Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse Angiopoietin-like 4 ELISA
Kit (ab210577)

To learn more about the advantages of recombinant antibodies see [here](#).

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