

Mouse PDGFR beta ELISA Kit ab253225

Recombinant SimpleStep ELISA[®]

[4 Images](#)

Overview

Product name Mouse PDGFR beta ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

| Sample | n | Mean | SD | CV% |
|--------|---|------|----|------|
| Serum | 8 | | | 3.3% |

Inter-assay

| Sample | n | Mean | SD | CV% |
|--------|---|------|----|------|
| Serum | 3 | | | 2.6% |

Sample type

Cell culture supernatant, Serum, Cell culture media, EDTA Plasma

Assay type

Sandwich (quantitative)

Sensitivity

20.3 pg/ml

Range

109.4 pg/ml - 7000 pg/ml

Recovery

Sample specific recovery

| Sample type | Average % | Range |
|--------------------------|-----------|-------------|
| Cell culture supernatant | 105 | 104% - 107% |
| Serum | 93 | 90% - 95% |
| Cell culture media | 104 | 103% - 106% |
| EDTA Plasma | 112 | 106% - 116% |

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Mouse

Does not react with: Cow**Product overview**

Mouse PDGFR beta ELISA Kit (ab253225) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PDGFR beta protein in cell culture media, cell culture supernatant, edta plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse PDGFR beta with 20.3 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.

Notes

PDGFR beta (Platelet-derived growth factor receptor beta) is a tyrosine kinase receptor for members of the platelet derived growth factor family, homodimeric PDGFB and PDGFD, and heterodimeric PDGFA/B. Binding plays an essential role in embryonic development, blood vessel development, and cell proliferation, migration, survival, chemotaxis, and differentiation.

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 PDGFR beta Capture Antibody | 1 x 600µl |
| 10X Mouse PDGFR beta Detector Antibody | 1 x 600µl |
| 10X Wash Buffer PT (ab206977) | 1 x 20ml |
| Antibody Diluent 4BI | 1 x 6ml |
| Mouse PDGFR beta 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 |
| Stop Solution | 1 x 12ml |

| Components | 1 x 96 tests |
|--------------------------|--------------|
| TMB Development Solution | 1 x 12ml |

Function

Receptor that binds specifically to PDGFB and PDGFD and has a tyrosine-protein kinase activity. Phosphorylates Tyr residues at the C-terminus of PTPN11 creating a binding site for the SH2 domain of GRB2.

Involvement in disease

Note=A chromosomal aberration involving PDGFRB is found in a form of chronic myelomonocytic leukemia (CMML). Translocation t(5;12)(q33;p13) with EVT6/TEL. It is characterized by abnormal clonal myeloid proliferation and by progression to acute myelogenous leukemia (AML).

Note=A chromosomal aberration involving PDGFRB may be a cause of acute myelogenous leukemia. Translocation t(5;14)(q33;q32) with TRIP11. The fusion protein may be involved in clonal evolution of leukemia and eosinophilia.

Note=A chromosomal aberration involving PDGFRB may be a cause of juvenile myelomonocytic leukemia. Translocation t(5;17)(q33;p11.2) with SPECC1.

Defects in PDGFRB are a cause of myeloproliferative disorder chronic with eosinophilia (MPE) [MIM:131440]. A hematologic disorder characterized by malignant eosinophils proliferation.

Note=A chromosomal aberration involving PDGFRB is found in many instances of myeloproliferative disorder chronic with eosinophilia. Translocation t(5;12) with ETV6 on chromosome 12 creating a PDGFRB-ETV6 fusion protein.

Note=A chromosomal aberration involving PDGFRB may be the cause of a myeloproliferative disorder (MBD) associated with eosinophilia. Translocation t(1;5)(q23;q33) that forms a PDE4DIP-PDGFRB fusion protein.

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

Contains 5 Ig-like C2-type (immunoglobulin-like) domains.

Contains 1 protein kinase domain.

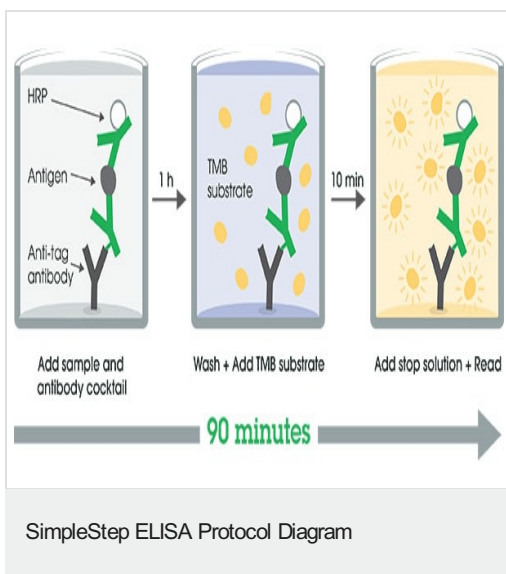
Post-translational modifications

Autophosphorylated. Dephosphorylated by PTPRJ at Tyr-751, Tyr-857, Tyr-1009 and Tyr-1021.

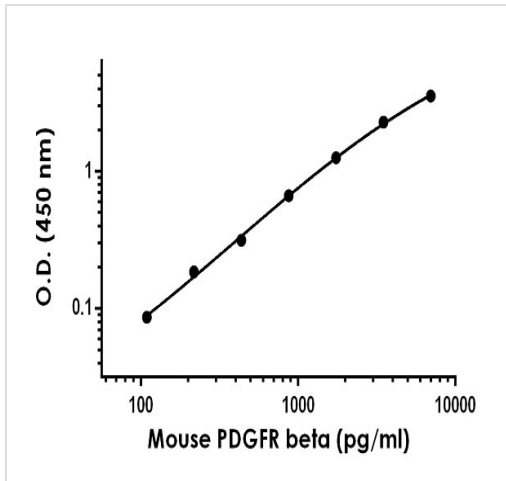
Cellular localization

Membrane.

Images

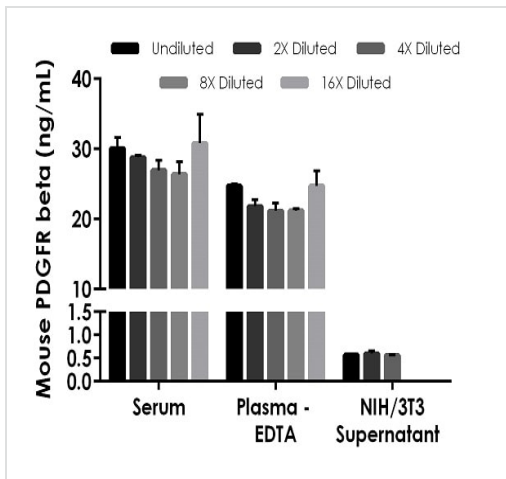


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of mouse PDGFR beta standard curve in Sample Diluent NS.

The PDGFR beta 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.



Interpolated concentrations of native PDGFR beta in mouse serum, plasma (EDTA), and cell culture supernatant samples.

The concentrations of PDGFR beta were measured in duplicates, interpolated from the PDGFR beta standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 12.5%, plasma (EDTA) 12.5%, NIH/3T3 cell culture supernatant 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PDGFR beta concentration was determined to be 28.59 ng/mL in neat serum, 22.71 ng/mL in neat plasma (EDTA), and 0.578 ng/mL in neat NIH/3T3 cell culture supernatant.

Powered by
recombinant antibodies



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse PDGFR beta ELISA Kit
(ab253225)

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

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