

## Product datasheet

# Human PDGF R alpha ELISA Kit ab242246

Recombinant SimpleStep ELISA

[7 Images](#)

### Overview

**Product name** Human PDGF R alpha ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
serum	8			3.6%

Inter-assay

Sample	n	Mean	SD	CV%
serum	3			7.7%

**Sample type**

Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

**Assay type**

Sandwich (quantitative)

**Sensitivity**

1.89 pg/ml

**Range**

31.25 pg/ml - 2000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	106	105% - 107%
Serum	92	84% - 97%
Cell culture extracts	90	85% - 97%
Tissue Extracts	98	91% - 105%
Hep Plasma	99	94% - 105%
EDTA Plasma	97	93% - 102%

Sample type	Average %	Range
Cit plasma	102	100% - 102%

**Assay time**

1h 30m

**Assay duration**

One step assay

**Species reactivity**

**Reacts with:** Human

**Product overview**

Human PDGF R alpha ELISA Kit (ab242246) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of PDGF R alpha protein in cell culture extracts, cell culture supernatant, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human PDGF R alpha with 1.89 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**

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**

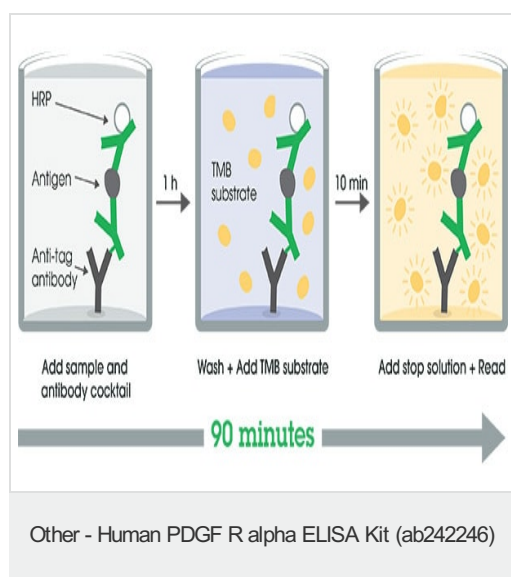
**Storage instructions** Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human PDGF R alpha Capture Antibody	1 x 600µl
10X Human PDGF R alpha Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml

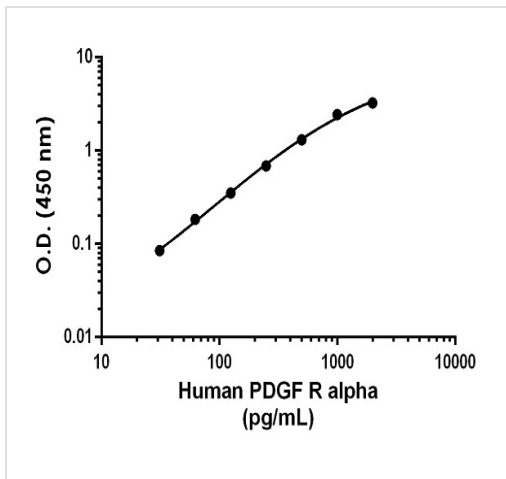
Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
Human PDGF R alpha Lyophilized recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

<b>Function</b>	Receptor that binds both PDGFA and PDGFB and has a tyrosine-protein kinase activity.
<b>Tissue specificity</b>	Expressed in primary and metastatic colon tumors and in normal colon tissue. Tumors may express a different isoform to that found in normal tissue.
<b>Involvement in disease</b>	Note=A chromosomal aberration involving PDGFRA is found in some cases of hypereosinophilic syndrome. Interstitial chromosomal deletion del(4)(q12q12) causes the fusion of FIP1L1 and PDGFRA (FIP1L1-PDGFR).
<b>Sequence similarities</b>	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.
<b>Cellular localization</b>	Membrane.

## Images

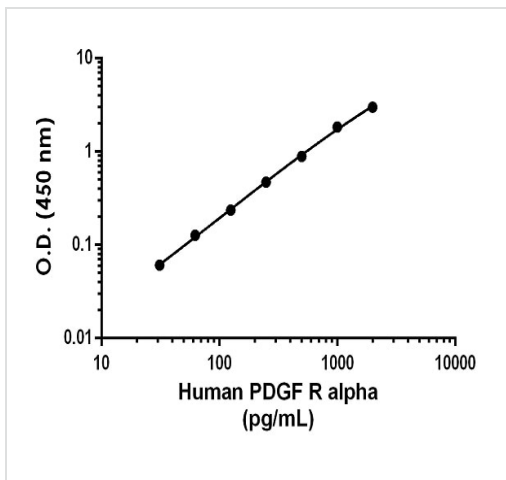


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



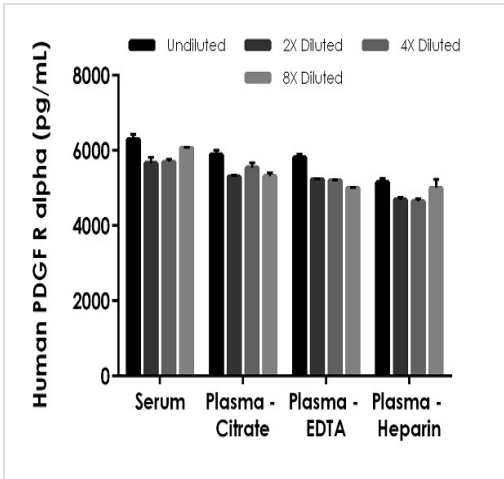
The PDGF R alpha standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human PDGF R alpha standard curve in Sample Diluent NS.



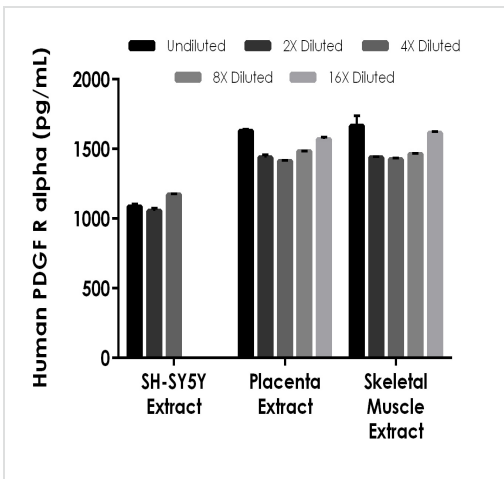
The PDGF R alpha standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human PDGF R alpha standard curve in 1X Cell Extraction Buffer PTR.



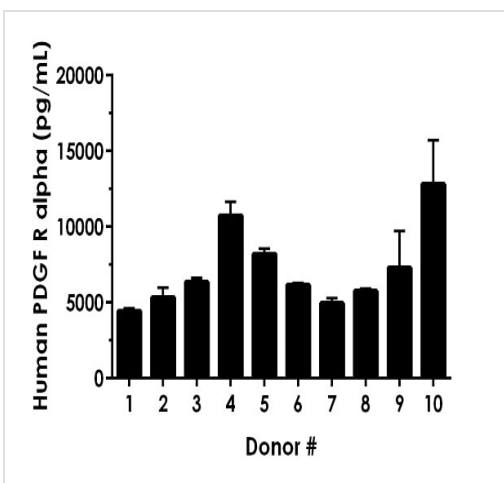
Interpolated concentrations of native PDGF R alpha in human serum, and plasma samples.

The concentrations of PDGF R alpha were measured in duplicates, interpolated from the PDGF R alpha standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 50%, plasma (EDTA) 50% and plasma (heparin) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PDGF R alpha concentration was determined to be 5932.99 pg/mL in serum, 5414.30 pg/mL in plasma (citrate), 5256.55 pg/mL in plasma (EDTA), and 4851.59 pg/mL plasma (heparin).



Interpolated concentrations of native PDGF R alpha in human SH-SY5Y based on a 125 ug/mL load.

Interpolated concentrations of native PDGF R alpha in human placenta, and skeletal muscle extract samples based on a 250 µg/mL extract load. The concentrations of PDGF R alpha were measured in duplicate and interpolated from the PDGF R alpha standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PDGF R alpha concentration was determined to be 1105.74 pg/mL in SH-SY5Y extract, 1507.92 pg/mL in placenta extract and 1521.98 pg/mL in skeletal muscle extract.



Serum (10%) from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PDGF R alpha concentration was determined to be 7160.36 pg/mL with a range of 4446.95 - 12638.24 pg/mL.

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Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Human PDGF R alpha ELISA Kit  
(ab242246)

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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