

## PDGF R beta Protein, Human (HEK293, C-His-Avi)

<b>Cat. No.:</b>	HY-P77123
<b>Synonyms:</b>	Platelet-derived growth factor receptor beta; PDGF-R-beta; PDGFR-1; CD140b; PDGFRB
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P09619-1 (L33-F530)
<b>Gene ID:</b>	5159
<b>Molecular Weight:</b>	78-115 kDa

### PROPERTIES

#### AA Sequence

L V V T P P G P E L	V L N V S S T F V L	T C S G S A P V V W	E R M S Q E P P Q E
M A K A Q D G T F S	S V L T L T N L T G	L D T G E Y F C T H	N D S R G L E T D E
R K R L Y I F V P D	P T V G F L P N D A	E E L F I F L T E I	T E I T I P C R V T
D P Q L V V T L H E	K K G D V A L P V P	Y D H Q R G F S G I	F E D R S Y I C K T
T I G D R E V D S D	A Y Y V Y R L Q V S	S I N V S V N A V Q	T V V R Q G E N I T
L M C I V I G N E V	V N F E W T Y P R K	E S G R L V E P V T	D F L L D M P Y H I
R S I L H I P S A E	L E D S G T Y T C N	V T E S V N D H Q D	E K A I N I T V V E
S G Y V R L L G E V	G T L Q F A E L H R	S R T L Q V V F E A	Y P P P T V L W F K
D N R T L G D S S A	G E I A L S T R N V	S E T R Y V S E L T	L V R V K V A E A G
H Y T M R A F H E D	A E V Q L S F Q L Q	I N V P V R V L E L	S E S H P D S G E Q
T V R C R G R G M P	Q P N I I W S A C R	D L K R C P R E L P	P T L L G N S S E E
E S Q L E T N V T Y	W E E E Q E F E V V	S T L R L Q H V D R	P L S V R C T L R N
A V G Q D T Q E V I	V V P H S L P F		

**Biological Activity** Immobilized Human PDGF R beta, His Tag at 0.5 µg/mL (100 µl/well) on the plate. Dose response curve for Anti-PDGF R beta Antibody, hFc Tag with the EC<sub>50</sub> of ≤11 ng/mL determined by ELISA.

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O.

**Storage & Stability** Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

The receptor described in the text is the platelet-derived growth factor receptor alpha (PDGFRA). PDGFRA is involved in various cellular processes, including embryonic development, cell proliferation, survival, differentiation, chemotaxis, migration, and blood vessel development. It plays a crucial role in the recruitment of pericytes and smooth muscle cells to endothelial cells, as well as in the migration of vascular smooth muscle cells and the formation of neointima at vascular injury sites. PDGFRA is required for normal development of the cardiovascular system and for the formation of a branched network of capillaries in kidney glomeruli. It promotes rearrangement of the actin cytoskeleton and the formation of membrane ruffles. Binding of its ligands, including homodimeric PDGFB, heterodimers formed by PDGFA and PDGFB, or homodimeric PDGFD, leads to the activation of several signaling cascades. PDGFRA phosphorylates various downstream effectors, including PLCG1, PIK3R1, PTPN11, RASA1/GAP, CBL, SHC1, NCK1, PDCD6IP/ALIX, and STAM. The receptor signaling is regulated by protein phosphatases that dephosphorylate the receptor and its downstream effectors, as well as by the rapid internalization of the activated receptor.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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