

Datasheet: 0100-0220

Description:	MOUSE ANTI HUMAN CD140a
Specificity:	CD140a
Other names:	PDGF RECEPTOR ALPHA
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	35248 (57/20)
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Paraffin	▪			10µg/ml - 20µg/ml
ELISA	▪			0.5 µg/ml - 1 µg/ml
Western Blotting	▪			1 µg/ml - 2 µg/ml
Immunofluorescence	▪			
Functional Assays (1)			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

(1)Removal of Sodium Azide is recommended prior to use in functional assays. The use of [EQU003](#) is recommended for this purpose.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	5% Trehalose
Approx. Protein Concentrations	1.0 mg/ml
Immunogen	Purified recombinant human platelet-derived growth factor (PDGF) receptor alpha (extracellular domain), derived from the insect cell line Sf21.

**External Database
Links**

UniProt:

[P16234](#) [Related reagents](#)

Entrez Gene:

[5156](#) PDGFRA [Related reagents](#)

Specificity

Mouse anti Human CD140a antibody, clone 35248 recognizes the human platelet-derived growth factor receptor alpha, a 1089 amino acid, ~180 kDa single pass type I transmembrane glycoprotein.

PDGF is a major serum mitogen that can exist as a homo- or heterodimeric protein consisting of disulphide-linked PDGF-A and PDGF-B chains ([Hart et al. 1990](#)). The PDGF-AA, PDGF-BB and PDGF-AB isoforms have been shown to bind to two distinct cell surface PDGF receptors with different affinities. Whereas PDGF receptor alpha binds all three isoforms with high affinity, PDGF R beta binds PDGF-BB and AB but not PDGF-AA ([Hart et al. 1988](#)). Both PDGF receptor alpha and beta are members of the class III subfamily of receptor tyrosine kinases ([Westermark 1995](#)).

Mouse anti Human CD140a antibody, clone 35248 has been reported for use in functional studies. The ND50 was determined as 0.2-0.6 µg/ml for blocking 10 ng/ml of PDGF-AA biological activity on a quiescent confluent cell culture of human WS1 cells.

References

1. De Paula, M.L. *et al.* (2014) The PTEN inhibitor bisperoxovanadium enhances myelination by amplifying IGF-1 signaling in rat and human oligodendrocyte progenitors. [Glia. 62 \(1\): 64-77.](#)
2. Preisner, A. *et al.* (2015) Non-steroidal anti-inflammatory drug indometacin enhances endogenous remyelination. [Acta Neuropathol. 130 \(2\): 247-61.](#)
3. Kuroda, M. *et al.* (2017) Peripherally derived FGF21 promotes remyelination in the central nervous system. [J Clin Invest. 127 \(9\): 3496-509.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10044 available at:
10044: <https://www.bio-rad-antibodies.com/uploads/MSDS/10044.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800

Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Human Anti Mouse IgG1 (HCA036...) [HRP](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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