abcam

ab233806

Anti-PTPRD antibody [5H5D7]

Mouse Monoclonal PTPRD antibody. Suitable for Flow Cyt, WB and reacts with Human samples. Cited in 4 publications. Immunogen corresponding to Recombinant Fragment Protein within Human Receptor-type tyrosine-protein phosphatase delta aa 1050 to C-terminus.

Image updates are in progress. Products remain available and covered by the Abcam Product Promise. Learn more.

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human Receptor-type tyrosine-protein phosphatase delta aa 1050 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P23468
Clone number	5H5D7
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/200 - 1/400
Notes	-

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Target data

See full target information Receptor-type tyrosine-protein phosphatase delta

Function	Can bidirectionally induce pre- and post-synaptic differentiation of neurons by mediating interaction with IL1RAP and IL1RAPL1 trans-synaptically. Involved in pre-synaptic differentiation through interaction with SLITRK2.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	PTPRD also called Protein Tyrosine Phosphatase Receptor Type D functions as a receptor-type protein tyrosine phosphatase. It is an enzyme that removes phosphate groups from tyrosine residues in proteins. This protein has a mass of about 215 kDa and consists of extracellular transmembrane and intracellular regions. It is expressed broadly in human tissues notably in the nervous system and is present in neurons.
Biological function summary	This protein plays a significant role in cell adhesion and signal transduction. It is important for neuronal development as it helps form synaptic connections influencing the communication between neurons. PTPRD forms part of the protein complex involved in cellular signaling pathways regulating processes such as axon guidance and neural patterning. The extracellular regions which interact with cell surface proteins aid in these functions.
Pathways	PTPRD engages in neurodevelopmental and synaptic signaling pathways. It interacts with proteins like LAR (Leukocyte antigen-related) and N-cadherin both involved in neural development. PTPRD's phosphatase activity alters the phosphorylation status of downstream components integrating into pathways that are critical for neural network formation and function.
Associated diseases and disorders	PTPRD has been linked to cancer and neurological disorders such as autism spectrum disorder (ASD). Genetic studies have identified that disruptions in the PTPRD gene are associated with increased cancer risk possibly due to its role in cell growth regulation. In neurological contexts PTPRD effects on synaptic connections suggest a connection with ASD where dysfunctions in neural connectivity are common. It shares a pathway relationship with proteins like contactin and TAG-1 which are also implicated in neural development anomalies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

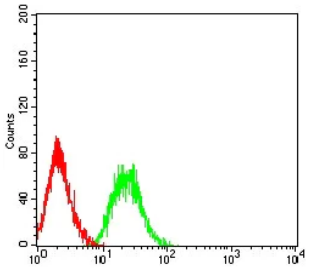
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - Anti-PTPRD antibody [5H5D7] (ab233806)

PTPRD Flow Cytometry staining using mouse Anti-PTPRD antibody

Flow cytometric analysis of HL-60 (human promyelocytic leukemia cell line) cells labeling PTPRD using ab233806 at 1/200 dilution (green) and a negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.