OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for CF503038

PTP1B (PTPN1) Mouse Monoclonal Antibody [Clone ID: OTI1A2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1A2
Applications:	FC, IF, WB
Recommended Dilution:	WB 1:2000, IF 1:100, FLOW 1:100
Reactivity:	Human, Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human PTPN1 (NP_002818) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	49.8 kDa
Gene Name:	protein tyrosine phosphatase non-receptor type 1
Database Link:	NP_002818 Entrez Gene 24697 RatEntrez Gene 5770 Human P18031

View online »

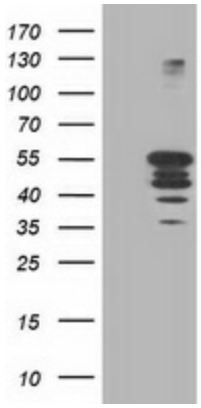
Background: The protein encoded by this gene is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotryosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation. [provided by RefSeq]

Synonyms: PTP1B

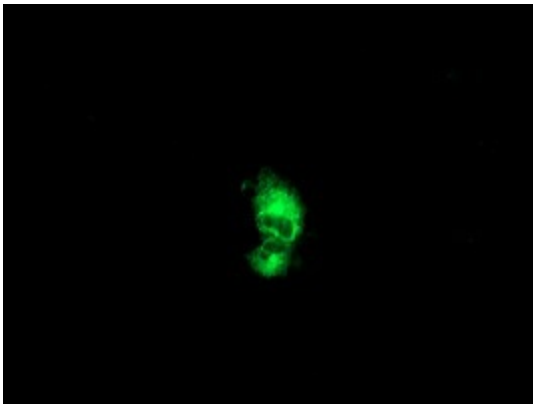
Protein Families: Druggable Genome, Phosphatase, Transmembrane

Protein Pathways: Adherens junction, Insulin signaling pathway

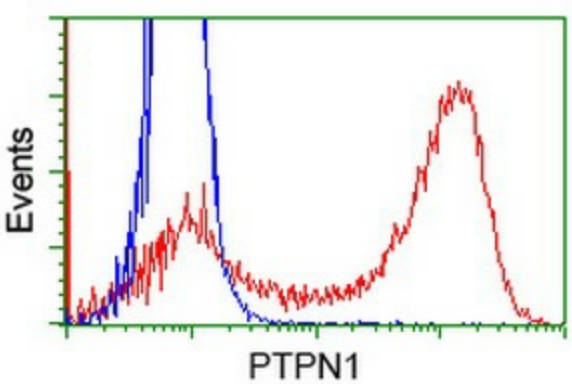
Product images:



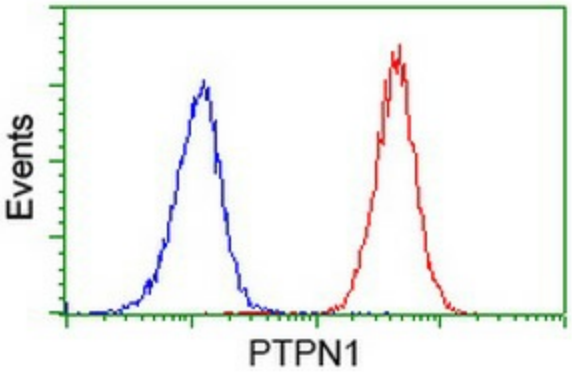
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PTPN1 ([RC204902], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PTPN1. Positive lysates [LY419087] (100ug) and [LC419087] (20ug) can be purchased separately from OriGene.



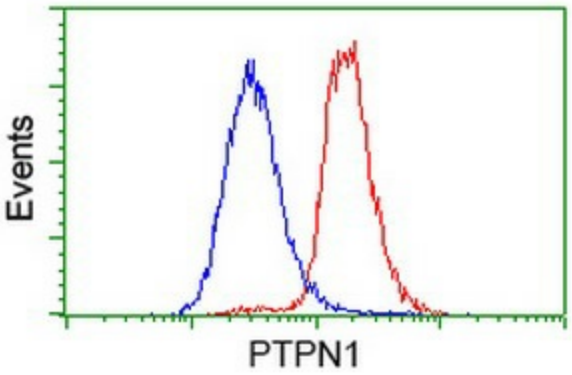
Anti-PTPN1 mouse monoclonal antibody ([TA503038]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PTPN1 ([RC204902]).



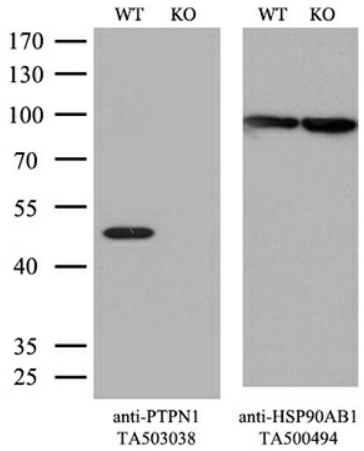
HEK293T cells transfected with either [RC204902] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PTPN1 antibody ([TA503038]), and then analyzed by flow cytometry.



Flow cytometric Analysis of Jurkat cells, using anti-PTPN1 antibody ([TA503038]), (Red), compared to a nonspecific negative control antibody, (Blue).



Flow cytometric Analysis of Hela cells, using anti-PTPN1 antibody ([TA503038]), (Red), compared to a nonspecific negative control antibody, (Blue).



Equivalent amounts of cell lysates (10 ug per lane) of wild-type Hela cells (WT, Cat# LC810HELA) and PTPN1-Knockout Hela cells (KO, Cat# [LC810193]) were separated by SDS-PAGE and immunoblotted with anti-PTPN1 monoclonal antibody [TA503038]. Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control (1:500).