

For Research Use Only

PTPRF Recombinant monoclonal antibody, PBS Only (Capture)

Catalog Number: 86944-1-PBS



Basic Information

Catalog Number: 86944-1-PBS	GenBank Accession Number: NM_002840.4	Purification Method: Protein A purification
Size: 100ug , Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 5792	CloneNo.: 252028F8
Source: Rabbit	UNIPROT ID: P10586-1	
Isotype: IgG	Full Name: protein tyrosine phosphatase, receptor type, F	
Immunogen Catalog Number: EG6919	Calculated MW: 213 kDa	
	Observed MW: 150 kDa	

Applications

Tested Applications:
WB, IF/ICC, Cytometric bead array, Sandwich ELISA, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

86944-1-PBS targets PTPRF as part of a matched antibody pair:

MP02791-1: 86944-1-PBS capture and 86944-2-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

PTPRF (Protein Tyrosine Phosphatase Receptor Type F) is a receptor protein tyrosine phosphatase, also known as LAR. PTPRF is a transmembrane protein with extracellular domain, transmembrane domain and two intracellular catalytic domains in series. It is located in the cell membrane and participates in the interaction between cells or cell matrix. It is widely expressed in many tissues, including fat, skin, heart, lung, liver, kidney, pancreas, small intestine, colon, brain, skeletal muscle, spleen, peripheral white blood cells and so on. The protein plays an important role in regulating a variety of cell processes, including cell growth, differentiation, mitotic cycle and carcinogenic transformation. In the insulin-responsive tissues of obese and insulin-resistant individuals, the expression level of PTPRF is increased, which may contribute to the pathogenesis of insulin resistance. PTPRF showed expression changes in many cancers, such as breast cancer, thyroid cancer, non-small cell lung cancer and so on. In gastric adenocarcinoma, PTPRF, as a new tumor suppressor, plays a role by inactivating ERK1/2 signaling pathway (PMID: 32973331). The total length of the protein is 175-200kd, and after cutting, it forms 125-150 and 80-85kd, 70 and 72kd fragments (PMID: 1547787, PMID: 17259169).

Storage

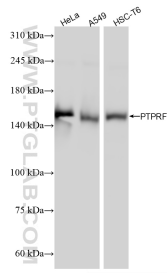
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

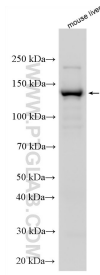
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

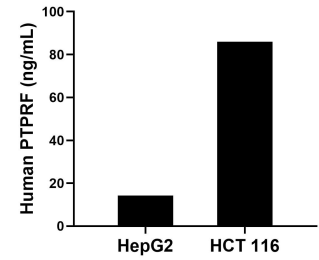
Selected Validation Data



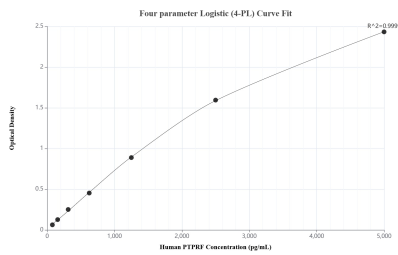
Various lysates were subjected to SDS PAGE followed by western blot with 86944-1-RR (PTPRF antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 86944-1-PBS in a different storage buffer formulation.



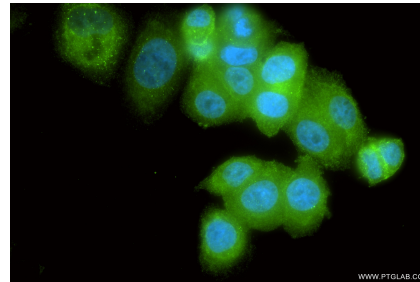
Various lysates were subjected to SDS PAGE followed by western blot with 86944-1-RR (PTPRF antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 86944-1-PBS in a different storage buffer formulation.



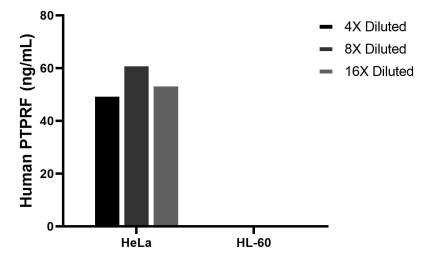
The mean PTPRF concentration was determined to be 14.2 ng/mL in HepG2 cell extract based on a 1.2 mg/mL extract load and 85.9 ng/mL in HCT 116 cell extract based on a 1.3 mg/mL extract load.



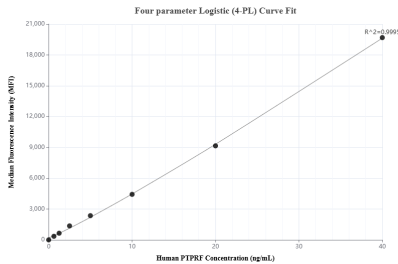
Sandwich ELISA standard curve of MPO2791-1, Human PTPRF Recombinant Matched Antibody Pair - PBS only. 86944-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Eg6919. 86944-2-PBS was HRP conjugated as the detection antibody. Range: 78.1-5000 pg/mL.



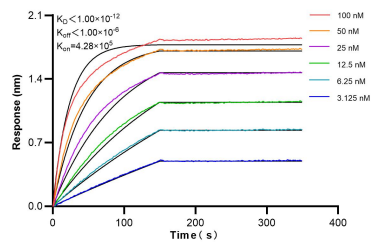
Immunofluorescent analysis of (4% PFA) fixed SK-BR-3 cells using PTPRF antibody (86944-1-RR, Clone: 252028F8) at dilution of 1:500 and Multi-rAb Coralite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002). This data was developed using the same antibody clone with 86944-1-PBS in a different storage buffer formulation.



The mean PTPRF concentration was determined to be 55.3 ng/mL in HeLa cell extract based on a 1.2 mg/mL extract load, HL-60 cell extract were served as a negative control.



Cytometric bead array standard curve of MPO2791-1, PTPRF Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 86944-1-PBS. Detection antibody: 86944-2-PBS. Standard: Eg6919. Range: 0.625-40 ng/mL.



Biolayer interferometry (BLI) kinetic assays of 86944-1-RR against Human PTPRF were performed. The affinity constant is below 1 pM.