

Product datasheet for **TA300926**

Protein Phosphatase 1 beta (PPP1CB) Rabbit Monoclonal Antibody [Clone ID: EP1804Y]

Product data:

Product Type:	Primary Antibodies
Clone Name:	EP1804Y
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:100000 - 1:200000; IP: 1:100; FC: 1:25; IHC-P: Use at an assay dependent dilution
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to residues on human PP1 beta was used as an immunogen.
Formulation:	PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05%
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	37 kDa
Gene Name:	protein phosphatase 1 catalytic subunit beta
Database Link:	NP_002700 Entrez Gene 19046 Mouse Entrez Gene 25594 Rat Entrez Gene 5500 Human P62140



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Background:

Protein phosphatase 1 (PP1) is a major eukaryotic protein serine/threonine phosphatase that regulates an enormous variety of cellular functions through the interaction of its catalytic subunit (PP1c) with over fifty different established or putative regulatory subunits (1). The coordinated and reciprocal action of serine/threonine (Ser/Thr) protein kinases and phosphatases produces transient phosphorylation, a fundamental regulatory mechanism for many biological processes. PP1 is ubiquitously distributed and regulates a broad range of cellular functions, including glycogen metabolism, cell-cycle progression and muscle relaxation. PP1 has evolved effective catalytic machinery but lacks substrate specificity. Substrate specificity is conferred upon PP1 through interactions with a large number of regulatory subunits (2). It has been shown that PP1 determines the efficacy of learning and memory by limiting acquisition and favoring memory decline. When PP1 is genetically inhibited during learning, short intervals between training episodes are sufficient for optimal performance (3).

Synonyms:

HEL-S-80p; PP-1B; PP1B; PP1beta; PPP1CD

Note:

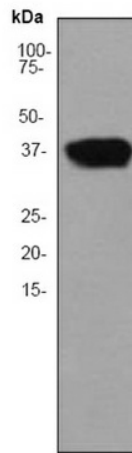
Is unsuitable for ICC.

Protein Families:

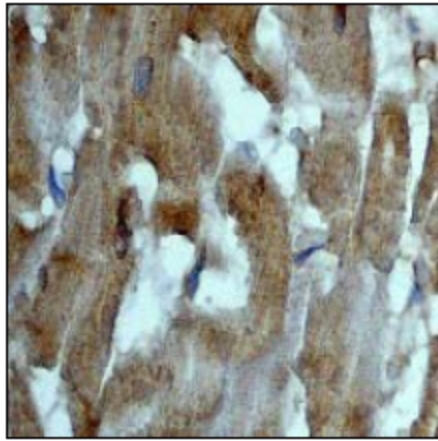
Druggable Genome, Phosphatase

Protein Pathways:

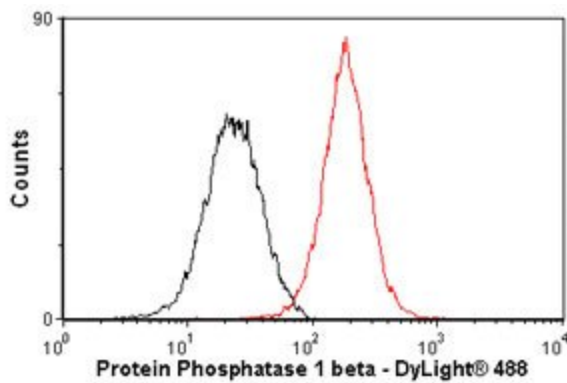
Focal adhesion, Insulin signaling pathway, Long-term potentiation, Oocyte meiosis, Regulation of actin cytoskeleton, Vascular smooth muscle contraction

Product images:

Western blot - Protein Phosphatase 1 beta antibody [EP1804Y]; Anti-Protein Phosphatase 1 beta antibody [EP1804Y] at 1/200000 dilution + Jurkat cell lysate at 10 ug. Secondary, Goat anti-rabbit HRP labeled at 1/2000 dilution. Predicted band size : 37 kDa. Observed band size : 37 kDa.



Immunohistochemistry (Paraffin-embedded sections) - Protein Phosphatase 1 beta antibody [EP1804Y]; Paraffin embedded human muscle labelled with TA300926 at 1/100 - 1/250 dilution



Flow Cytometry-Anti-Protein Phosphatase 1 beta antibody (TA300926); Overlay histogram showing HeLa cells stained with TA300926 (red line). The secondary antibody used was DyLight 488 goat anti-rabbit IgG (H+L) at 1:500. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1ug/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.