

#4485 Store at -20°C

PTP μ (BK2) Mouse mAb



✓ 100 μ l
(10 western blots)

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Applications W, IP Endogenous	Species Cross-Reactivity* H, R, Mi, (M)	Molecular Wt. 100, 110, 210 kDa	Isotype Mouse IgG2a**
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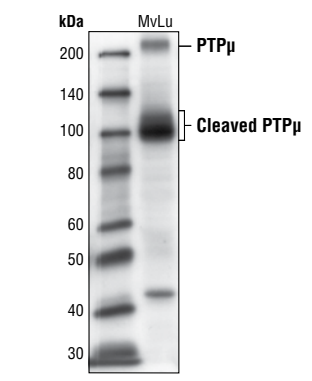
Background: Receptor tyrosine phosphatase PTP μ has an extracellular segment characteristic of adhesion molecules: an MEM domain, an Ig domain and four fibronectin III like (FN III) repeats (1,2). PTP μ is proteolytically cleaved into two noncovalently associated fragments: one is the extracellular domain, the other includes the transmembrane and the intracellular catalytic domains. Both fragments are approximately 100 kDa (3). The extracellular domain mediates cell-cell adhesion in a homophilic, Ca²⁺ independent manner (1,2). PTP μ associates with multiple cadherins (4). It is able to restore E-cadherin-dependent adhesion in human prostate cancer, and is required for N-cadherin-mediated neurite outgrowth (5,6). The phosphatase activity seems to be essential for the latter function but is dispensable for the former (5,6). PTP μ also associates with and recruits a scaffold protein, RACK (receptor for activated protein C kinase), to cell-cell contact sites (7). Both PKC δ and src seem to be involved in this process (6,7).

Specificity/Sensitivity: PTP μ Mouse mAb detects endogenous levels of total PTP μ protein. This antibody does not cross react with other receptor tyrosine phosphatases.

Source/Purification: Monoclonal antibody (isotype: IgG2a) is produced by immunizing mice with a synthetic peptide corresponding to the amino-terminal residues of human PTP μ .

Background References:

- (1) Gebbink, M.F. et al. (1993) *J. Biol. Chem.* 268, 16101–16104.
- (2) Brady-Kalnay, S.M. and Tonks, N.K. (1994) *J. Biol. Chem.* 269, 28472–28477.
- (3) Brady-Kalnay, S.M. et al. (1998) *J. Cell Biol.* 141, 287–296.
- (4) Hellberg, C.B. et al. (2002) *J. Biol. Chem.* 277, 11165–11173.
- (5) Burden-Gulley, S.M. and Brady-Kalnay, S.M. (1999) *J. Cell Biol.* 144, 1323–1336.
- (6) Mourton, T. et al. (2001) *J. Biol. Chem.* 276, 14896–14901.



Western blot analysis of extract from MvLu cells using PTP μ (BK2) Mouse mAb.

Entrez-Gene ID #5797
Swiss-Prot Acc. #P28827

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**
****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.