Technical Data Sheet

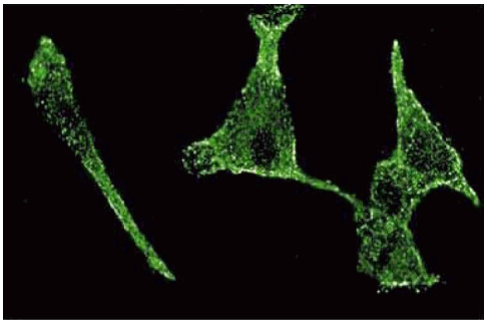
Purified Mouse Anti-RPTPα

Product Information

Material Number:	**610348**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	21/RPTPα
Immunogen:	Human RPTPα aa. 244-503
Isotype:	Mouse IgM
Reactivity:	QC Testing: Human
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Receptor-like protein tyrosine phosphatases (RPTPs) represent an important pathway for signal transduction via modification of protein tyrosine phosphorylation status. RPTPα is widely expressed and is particularly abundant in brain. Structurally, it is typical of RPTPs in that it has an intracellular region containing two tandem catalytic domains linked to a transmembrane and an extracellular region. However, unlike many RPTPs, the extracellular region of RPTPα is small (123 residues) and lacks any obvious structural motifs, though the protein is known to be heavily glycosylated. Both catalytic domains of RPTPα have intrinsic in vitro activity, but their exact roles in vivo remain uncertain. It has been postulated that due to their transmembrane nature, RPTPs are initiators for a cascade of intracellular signaling events, much like receptor tyrosine kinases.



Western blot analysis of RPTPα on SW13 lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of RPTPα.* ***U87***

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Sap J, D'Eustachio P, Givol D, Schlessinger J. Cloning and expression of a widely expressed receptor tyrosine phosphatase. *Proc Natl Acad Sci U S A*. 1990; 87(16):6112-6116.(Biology)

Zheng XM, Pallen CJ. Expression of receptor-like protein tyrosine phosphatase alpha in rat embryo fibroblasts activates mitogen-activated protein kinase and c-Jun. *J Biol Chem.* 1994; 269(37):23302-23309.(Biology)

Zheng XM, Wang Y, Pallen CJ. Cell transformation and activation of pp60c-src by overexpression of a protein tyrosine phosphatase. *Nature*. 1992; 359(6393):336-339.(Biology)