Mouse anti-receptor protein tyrosine phosphatase sigma, RPTPσ (17G7.2), #MM-0020

DATASHEET

Product name: receptor protein tyrosine phosphatase sigma (RPTPσ) antibody

Background information: Type IIa receptor protein tyrosine phosphatases (RPTPs) are a group of well-characterized proteins that are involved in axon growth and guidance during neural development. Members of this subfamily, RPTPσ, RPTPδ and LAR contain two cytoplasmic phosphatase domains and extracellular immunoglobulin domains followed by fibronectin type III repeats. RPTPσ is a type I transmembrane protein that has an apparent molecular weight of approximately 80 kDa. It is highly expressed by neurons in developing and adult mammalian nervous system. Knock-out mice for RPTPσ show growth retardation, delayed peripheral nerve development and high mortality rates. The role of RPTPσ in axon guidance during development suggests it could influence axon regeneration after injury in the adult mouse. It has been shown that RPTPσ slows axon regeneration in the adult injured CNS.

Product description: A highly specific and sensitive antibody against receptor protein tyrosine phosphatase sigma. The antibody is in a protein-free culture medium.

Format: 100 µg of lyophilized antibody. Reconstitute in 100 µl of distilled H₂O for a 1 µg/µl solution. It contains no additives.

Species: Mouse

Clonality: Monoclonal

Isotype: IgG1, Kappa chain

Reactivity / specificity: The antibody recognizes the intracellular sub-unit of RPTPσ. Specific for: human, monkey and mouse; other species not tested.

Applications: Immunohistochemistry (IHC), Immunoprecipitation (IP), Western blot (WB)

Recommended starting dilutions: WB: 1:2000 if reconstituted in 100 µl. Optimal dilution has to be determined by the user.

Storage: Lyophilized antibody can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage. To avoid freeze-thaw cycles, reconstituted antibody should be aliquoted before freezing for short-term storage (-20°C) or for long-term storage (-80°C). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made in assay buffer.

Stability: Minimum 1 year from reception date.

References:


Limitations: This product is to be used for research purposes only.