Mouse Spinesin Antibody

Monoclonal Rat IgG_{2A} Clone # 282324

Catalog Number: MAB1928

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Spinesin in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Spinesin is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 282324
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Spinesin Tyr61-Arg445 Accession # NP_109634
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse Spinesin (Catalog # 1928-SE)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Spinesin (Catalog # 1928-SE), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Spinesin, encoded by the TMPRSS5 gene, is a new member of type II transmembrane serine proteases (TTSPs) (1). Mouse Spinesin contains the following structural domains: a short N-terminal cytoplasmic tail, a transmembrane domain, a stem region and a serine protease domain (2). The domain structure of Spinesin is common to other TTSPs, many of which have additional domains. The stem region of Spinesin contains a scavenger receptor-like domain. There could be 4 types of transcripts due to alternative splicing (3). Type 4 predicts 10 extra amino acids (aa) at the N-terminus as compared to type 3. The ectodomain corresponding to type 3 (aa 61-445) or type 4 (aa 71-455) was expressed and purified as a single chain pro-enzyme. By SDS-PAGE, the pro-enzyme migrates as multiple forms, possibly due to differential glycosylation. The pro-enzyme can be activated by trypsin treatment. The resulting enzyme is active and its activity is measured as described above. The activated enzyme is a disulfide bond-linked dimer.

References:

1. Shibata, K. *et al.* (2000) Genome Res. **10**:1757.
2. Yamaguchi, Y. *et al.* (2002) J. Biol. Chem. **277**:6806.
3. Watanable, Y. *et al.* (2004) Biochem. Biophys. Res. Commun. **324**:333.

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