

DESCRIPTION

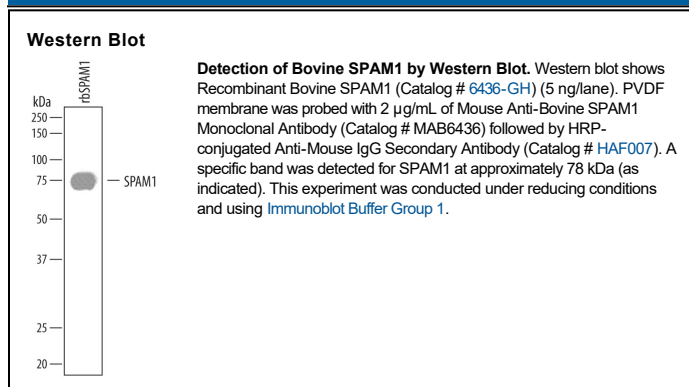
Species Reactivity	Bovine
Specificity	Detects bovine SPAM1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 763056
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant bovine SPAM1 Met1-Thr497 Accession # AAI10184
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	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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. <ul style="list-style-type: none"> • 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

Sperm adhesion molecule 1 (SPAM1), also known as PH-20 hyaluronidase (1), is encoded by one of the six hyaluronidase-like genes (1-3). SPAM1 is a GPI-anchored enzyme located on the sperm surface and inner acrosomal membrane (4). SPAM1 degrades hyaluronic acid (HA), a major structural glycosaminoglycan found in extracellular matrices and basement membranes. The enzyme activity enables sperm to penetrate through the HA-rich cumulus cell layer surrounding the oocyte and therefore facilitates the fertilization process (5-7). Because of the structural similarity between HA (repeating units of GlcAβ1-3GlcNAc) and chondroitin sulfate (repeating units of GlcAβ1-3GalNAc), the enzyme is also able to hydrolyze chondroitin sulfate. The bovine SPAM1 is 63% identical to human homologue in sequence.

References:

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4. Phelps, B.M. *et al.* (1988) Science **240**:4860
5. Gmachl, M. *et al.* (1993) FEBS Lett. **336**:545.
6. Hofinger, E.S. *et al.* (2007) Glycobiology **17**:963.
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