

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Latexin in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant human Latexin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Latexin Glu2-Glu222 Accession # P70202
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	0.1 µg/mL	Recombinant Mouse Latexin (Catalog # 3620-PI)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Latexin (Catalog # 3620-PI), see our available Western blot detection antibodies
Neutralization	Measured by its ability to neutralize Recombinant Mouse Latexin (0.1 µg/mL, Catalog # 3620-PI) inhibition of Recombinant Mouse Carboxypeptidase A1/CPA1 (0.1 µg/mL, Catalog # 2765-ZN) cleavage of the fluorogenic peptide substrate Ac-Phe-Thiaphe-OH (100 µM). The Neutralization Dose (ND ₅₀) is typically 4.4 µg/mL.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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. <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

Latexin, also known as tissue carboxypeptidase inhibitor, is the only mammalian carboxypeptidase inhibitor identified so far. Latexin was initially identified as a marker of neurons in the lateral neocortex of the developing brain (hence Latexin) (1). Further studies have shown that Latexin is highly expressed in mast cells and macrophages (2, 3). It is induced in acute pancreatitis and lung inflammatory disease. In addition, it is able to inhibit carboxypeptidases from the pancreas (CPA1 and CPA2) and mast cells (CPA3) (4). Therefore, it is thought that Latexin primarily functions in inflammation and innate immunity pathways. Compared to other carboxypeptidase inhibitors from plants and parasites, the 222 amino acid Latexin is much larger and more importantly, it lacks some conserved C-terminal residues, which interact with the target carboxypeptidase in a substrate-like manner (5). This distinct feature of Latexin suggests that it has a different carboxypeptidase inhibition mechanism.

References:

1. Arimatsu, Y. *et al.* (1994) *Neurosci. Res.* **20**:131.
2. Uratani, Y. *et al.* (2000) *Biochem. J.* **346**:817.
3. Aagaard A. *et al.* (2005) *Structure* **13**:309.
4. Normant E. *et al.* (1995) *Proc. Natl. Acad. Sci. USA* **92**:12225.
5. Reverter D. *et al.* (2000) *Nat. Struct. Biol.* **7**:322.