SANTA CRUZ BIOTECHNOLOGY, INC.

Latexin (8H5): sc-517052

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Latexin, also designated endogenous carboxypeptidase inhibitor (ECI) or tissue carboxypeptidase inhibitor (TCI), belongs to the protease inhibitor I47 family of proteins. Latexin acts as a non-competitive, reversible inhibitor for metallocarboxypeptidases (MCPs), including CPA1, CPA2 and CPA4. It is a cytoplasmic protein that is highly expressed in heart, prostate, pancreas, ovary, kidney, brain and colon. Latexin consists of two topologically equivalent subdomains that bind to MCPs with low specificity, which gives it with the flexibility to inhibit all vertebrate A/B MCPs. Latexin is involved in the transmission of pain and plays a role in inflammation.

REFERENCES

1. Uratani, Y., et al. 2000. Latexin, a carboxypeptidase A inhibitor, is expressed in rat peritoneal mast cells and is associated with granular structures distinct from secretory granules and lysosomes. Biochem. J. 346: 817-826.
2. Liu, Q., et al. 2001. Cloning, tissue expression pattern and genomic organization of latexin, a human homologue of rat carboxypeptidase A inhibitor. Mol. Biol. Rep. 27: 241-246.
3. Takiguchi-Hayashi, K. 2001. *In vitro* clonal analysis of rat cerebral cortical neurons expressing latexin, a subtype-specific molecular marker of glutamatergic neurons. Brain Res. Dev. Brain Res. 132: 87-90.
4. Aagaard, A., et al. 2005. An inflammatory role for the mammalian carboxypeptidase inhibitor latexin: relationship to cystatins and the tumor suppressor TIG1. Structure 13: 309-317.
5. García-Castellanos, R., et al. 2005. Detailed molecular comparison between the in the zymogen state and by the endogenous inhibitor latexin. Cell. Mol. Life Sci. 62: 1996-2014.
6. Pallarès, I., et al. 2005. Structure of human carboxypeptidase A4 with its latexin. Proc. Natl. Acad. Sci. USA 102: 3978-3983.
7. Jin, M., et al. 2006. Reduced pain sensitivity in mice lacking latexin, an inhibitor of metallocarboxypeptidases. Brain Res. 1075: 117-121.

CHROMOSOMAL LOCATION

Genetic locus: LXN (human) mapping to 3q25.32.

SOURCE

Latexin (8H5) is a mouse monoclonal antibody raised against amino acids 151-222 representing partial length Latexin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Latexin (8H5) is recommended for detection of Latexin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Latexin siRNA (h): sc-60917, Latexin shRNA Plasmid (h): sc-60917-SH and Latexin shRNA (h) Lentiviral Particles: sc-60917-V.

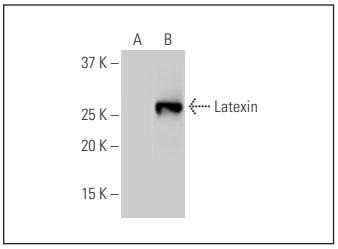
Molecular Weight of Latexin: 29 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or Latexin transfected 293T whole cell lysate.

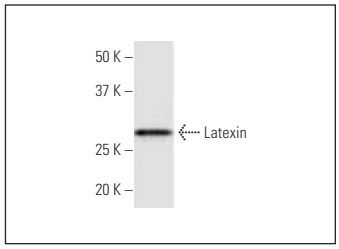
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Latexin (8H5): sc-517052. Western blot analysis of Latexin expression in non-transfected (**A**) and Latexin transfected (**B**) 293T whole cell lysates.



Latexin (8H5); sc-517052. Western blot analysis of Latexin expression in MCF7 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.