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Neurotrypsin Antibody

Catalog # ASC10525

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P56730
Other Accession	CAA04816, 2661424
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	97067
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Neurotrypsin antibody can be used for detection of neurotrypsin by Western blot at 0.5 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	8492
Other Names	Neurotrypsin Antibody: MRT1, BSSP3, BSSP-3, Neurotrypsin, Leydin, protease, serine, 12 (neurotrypsin, motopsin)
Target/Specificity	PRSS12;
Reconstitution & Storage	Neurotrypsin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Neurotrypsin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRSS12
Function	Plays a role in neuronal plasticity and the proteolytic action may subserve structural reorganizations associated with learning and memory operations.
Cellular Location	Secreted.
Tissue Location	Brain and Leydig cells of the testis.

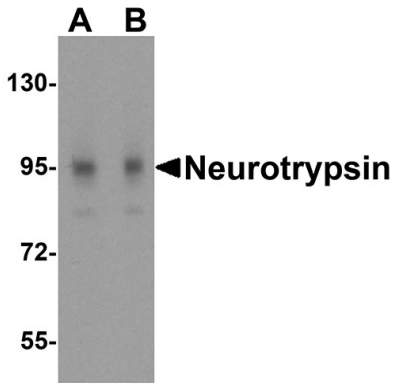
Background

Neurotrypsin Antibody: Neurotrypsin is a central nervous system-expressed serine protease whose truncation or absence causes nonsyndromic mental retardation. It is most prominently expressed in structures that are involved in the processing and storage of learned behavior and memory, such as the cerebral cortex, the hippocampus, and amygdala. Evidence suggests that neurotrypsin has multiple functions, including axonal outgrowth, maintaining neuronal plasticity, and arranging the perineuronal environment, partly in coordination with other proteases including tissue plasminogen activator. At least two isoforms of neurotrypsin are known to exist.

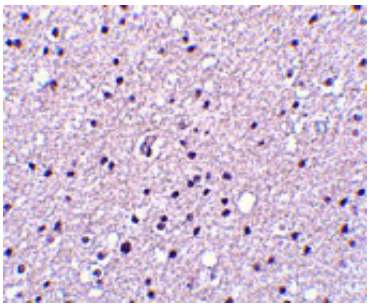
References

Gschwend TP, Krueger SR, Kozlov SV, et al. Neurotrypsin, a novel multidomain serine protease expressed in the nervous system. Mol. Cell. Neurosci.1997; 9:207-19.
Molinari F, Rio M, Meskanaite V, et al. Truncating neurotrypsin mutation in autosomal recessive nonsyndromic mental retardation. Science2002; 1779-81.
Mitsui S, Yamaguchi N, Osako Y, et al. Enzymatic properties and localization of motopsin (PRSS12), a protease who absence causes mental retardation. Brain Res.2007; 1136:1-12.

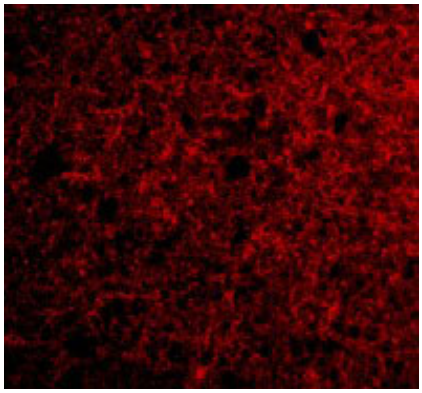
Images



Western blot analysis of neurotrypsin in 3T3 cell lysate with neurotrypsin antibody at (A) 0.25 and (B) 0.5 µg/mL.



Immunohistochemistry of Neurotrypsin in human brain tissue with Neurotrypsin antibody at 2.5 µg/mL.



Immunofluorescence of Neurotrypsin in Human Brain cells with Neurotrypsin antibody at 20 µg/mL.

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