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SERPINI1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10388a

Product Information

Application	IHC-P, IF, FC, WB, E
Primary Accession	Q99574
Other Accession	NP_001116224.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28079
Calculated MW	46427
Antigen Region	19-45

Additional Information

Gene ID	5274
Other Names	Neuroserpin, Peptidase inhibitor 12, PI-12, Serpin I1, SERPINI1, PI12
Target/Specificity	This SERPINI1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 19-45 amino acids from the N-terminal region of human SERPINI1.
Dilution	IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SERPINI1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SERPINI1
Synonyms	PI12
Function	Serine protease inhibitor that inhibits plasminogen activators and plasmin

	but not thrombin (PubMed:11880376, PubMed:19265707, PubMed:19285087, PubMed:26329378, PubMed:9442076). May be involved in the formation or reorganization of synaptic connections as well as for synaptic plasticity in the adult nervous system. May protect neurons from cell damage by tissue-type plasminogen activator (Probable).
Cellular Location	Secreted. Cytoplasmic vesicle, secretory vesicle lumen. Perikaryon
Tissue Location	Detected in brain cortex and hippocampus pyramidal neurons (at protein level) (PubMed:17040209). Detected in cerebrospinal fluid (at protein level) (PubMed:25326458). Predominantly expressed in the brain (PubMed:9070919).

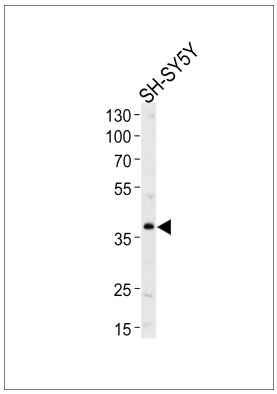
Background

This gene encodes a member of the serpin superfamily of serine proteinase inhibitors. The protein is primarily secreted by axons in the brain, and preferentially reacts with and inhibits tissue-type plasminogen activator. It is thought to play a role in the regulation of axonal growth and the development of synaptic plasticity. Mutations in this gene result in familial encephalopathy with neuroserpin inclusion bodies (FENIB), which is a dominantly inherited form of familial encephalopathy and epilepsy characterized by the accumulation of mutant neuroserpin polymers. Multiple alternatively spliced variants, encoding the same protein, have been identified.

References

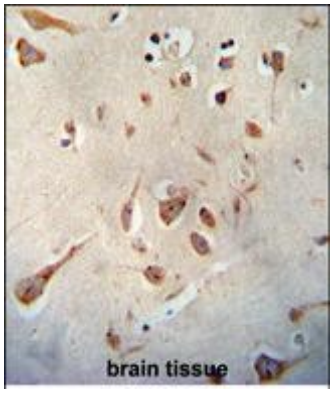
Takehara, S., et al. J. Mol. Biol. 403(5):751-762(2010)
Han, S., et al. Hum. Immunol. 71(7):727-730(2010)
Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 19(5):1356-1361(2010)
Davies, M.J., et al. J. Biol. Chem. 284(27):18202-18209(2009)
Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 18(5):1651-1658(2009)

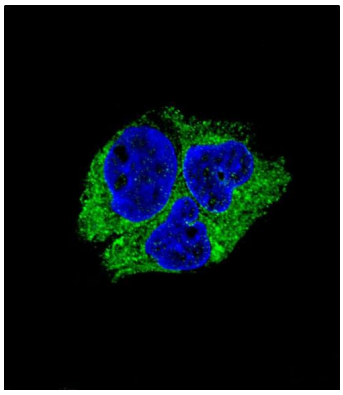
Images



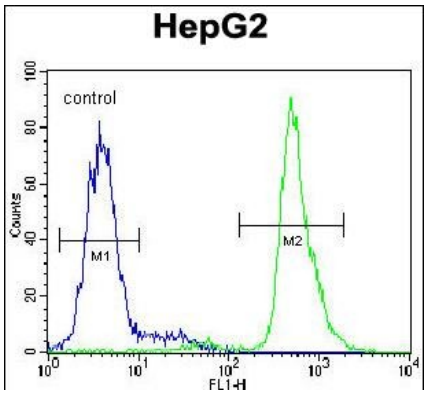
Western blot analysis of lysate from SH-SY5Y cell line, using SERPINI1 Antibody (N-term)(Cat. #AP10388a). AP10388a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.

SERPINI1 antibody (N-term) (Cat. #AP10388a) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SERPINI1 antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.





Confocal immunofluorescent analysis of SERPINI1 Antibody (N-term)(Cat#AP10388a) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



SERPINI1 Antibody (N-term) (Cat. #AP10388a) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.