



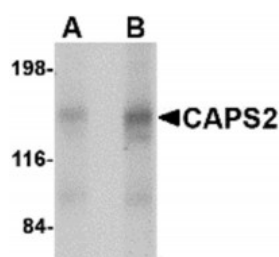
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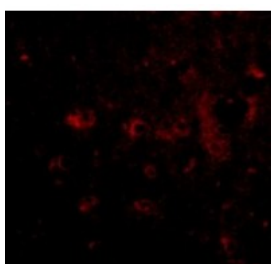
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CAPS2 Antibody

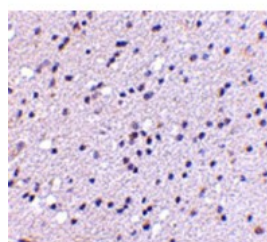
CATALOG NUMBER: 4565



Western blot analysis of CAPS2 in human brain tissue lysate with CAPS2 antibody at (A) 0.5 and (B) 1 ug/mL.



Immunofluorescence of CAPS2 in Human Brain tissue with CAPS2 antibody at 20 ug/mL.



Immunohistochemistry of CAPS2 in human brain with CAPS2 antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	CAPS2 antibody can be used for detection of CAPS2 by Western blot at 0.5 - 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1303 - Human Brain Tissue Lysate 2) Cat. No. 10-301 - Human Brain Tissue Slide
PREDICTED MOLECULAR WEIGHT:	Predicted: 138, 145 kDa Observed: 150 kDa
SPECIFICITY:	Multiple isoforms of CAPS2 are known to exist. This CAPS2 antibody is predicted to be specific to CAPS2 and not recognize CAPS1.
IMMUNOGEN:	CAPS2 antibody was raised against a 19 amino acid synthetic peptide near the center of the human CAPS2. The immunogen is located within amino acids 510 - 560 of CAPS2.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	CAPS2 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	CAPS2 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	CAPS2 antibody can be stored at 4°C for three months and -20°C, 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.

CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	CAPS2 Antibody: CAPS2, KIAA1591, Calcium-dependent secretion activator 2, Calcium-dependent activator protein for secretion 2, CAPS-2
ACCESSION NO.:	NP_060424
PROTEIN GI NO.:	148839294
OFFICIAL SYMBOL:	CADPS2
GENE ID:	93664

Background

BACKGROUND: CAPS2 Antibody: CAPS2 and the related protein CAPS1 encode novel neural/endocrine-specific cytosolic and peripheral membrane proteins. Both are essential components of the synaptic vesicle priming machinery and are required for the Ca²⁺-regulated exocytosis of secretory vesicles; CAPS-deficient neurons contain no or very few fusion competent synaptic vesicles, causing a selective impairment of fast phasic transmitter release. Like CAPS1, numerous isoforms of CAPS2 are known to exist. These isoforms show distinct expression patterns in the brain. For example, CAPS2b showed high expression in the developing cerebellum. Furthermore, one version of CAPS2 mRNA that lacks exon 3 is detected in some autistic patients, suggesting that the differential expression pattern of CAPS2 is involved in neuronal development.

REFERENCES:

- 1) Walent JH, Porter BW, and Martin TF. A novel 145 kD brain cytosolic protein reconstitutes Ca⁽²⁺⁾-regulated secretion in permeable neuroendocrine cells. *Cell* 1992; 70:765-775.
- 2) Juckusch WJ, Speidel D, Sigler A, et al. CAPS-1 and CAPS-2 are essential synaptic vesicle priming proteins. *Cell* 2007; 131:796-808.
- 3) Sadakata T, Washida M, and Furuichi T. Alternative splicing variants in mouse CAPS2: differential expression and functional properties of splicing variants. *BMC Neurosci.* 2007; 8:25-35.

FOR RESEARCH USE ONLY

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