

CAPS1 Rabbit pAb

Catalog # AP97569

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9ULU8
Other Accession	Q9ULU8
Predicted	Rat, Pig, Human, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	152786
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CAPS1
Epitope Specificity	1231-1330/1353
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 C2 domain. Contains 1 MHD1 (MUNC13 homology domain 1) domain. Contains 1 PH domain.
SUBUNIT	Homodimer. Interacts with RASL10B. Interacts with the dopamine receptor DRD2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a novel neural/endocrine-specific cytosolic and peripheral membrane protein required for the Ca ²⁺ -regulated exocytosis of secretory vesicles. The protein acts at a stage in exocytosis that follows ATP-dependent priming, which involves the essential synthesis of phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P ₂). Alternative splicing has been observed at this locus and three variants, encoding distinct isoforms, are described. [provided by RefSeq, Aug 2008]

Additional Information

Gene ID	8618
Other Names	CADPS1; CAPS; CAPS1; UNC-31; mKIAA1121; Caps2; CAPS1_HUMAN; CADPS; Calcium-dependent activator protein for secretion 1 (CAPS-1); KIAA1121; CAPS1_MOUSE; CAPS1_RAT; Calcium-dependent activator protein for secretion 1 (CAPS-1 rCAPS); calcium dependent secretion activator; Ca ⁺⁺ -dependent secretion activator; Ca ²⁺ dependent secretion activator
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CADPS
Synonyms	CAPS, CAPS1, KIAA1121
Function	Calcium-binding protein involved in exocytosis of vesicles filled with neurotransmitters and neuropeptides. Probably acts upstream of fusion in the biogenesis or maintenance of mature secretory vesicles. Regulates catecholamine loading of DCVs. May specifically mediate the Ca(2+)-dependent exocytosis of large dense-core vesicles (DCVs) and other dense-core vesicles by acting as a PtdIns(4,5)P2- binding protein that acts at prefusion step following ATP-dependent priming and participates in DCVs-membrane fusion. However, it may also participate in small clear synaptic vesicles (SVs) exocytosis and it is unclear whether its function is related to Ca(2+) triggering (By similarity).
Cellular Location	Synapse {ECO:0000250 UniProtKB:Q62717}. Cytoplasmic vesicle, secretory vesicle, neuronal dense core vesicle membrane {ECO:0000250 UniProtKB:Q62717}; Peripheral membrane protein {ECO:0000250 UniProtKB:Q62717}. Note=Membrane-associated to vesicles Strongly enriched in synaptic fractions. Preferentially binds to dense core vesicles but not to synaptic vesicles. Binds phosphoinositides, with a strong selectivity for PtdIns(4,5)P2 over PtdIns(3,4,5)P3. Probably localizes to different vesicles compared to CADPS2 {ECO:0000250 UniProtKB:Q62717}
Tissue Location	Specifically expressed in neural and endocrine secretory tissues. Expressed in brain and pancreas and at low level in heart. Also expressed in fetal heart, cerebellum, cerebral cortex, medulla, occipital pole, frontal and temporal lobes, and putamen, as well as weak expression in spinal cord.

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