

CAPS1 (CT) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat CAPS1 (Calcium-dependent secretion activator 1, CADPS1)

Instruction Manual

Catalog Number	PK-AB718-4559
Synonyms	CAPS1 Antibody: Calcium-dependent secretion activator 1, CADPS1, CAPS
Description	CAPS1 and its related protein CAPS2 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 Ca ²⁺ -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. CAPS1 acts at a stage in exocytosis that follows ATP-dependent priming, which involves the essential synthesis of phosphatidylinositol 4,5-bisphosphate and is thought to be a specific regulator of large dense-core vesicle fusion. Numerous isoforms of CAPS1 are known to exist; the lower molecular weight bands seen in the immunoblot image are likely to be these isoforms. This CAPS1 antibody is predicted to be specific to CAPS1 and not recognize CAPS2.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	CAPS1 antibody was raised in rabbits against a 20 amino acid peptide near the carboxy terminus of the human CAPS1.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	Numerous isoforms of CAPS1 are known to exist; the lower molecular weight bands seen in the immunoblot image are likely to be these isoforms. This CAPS1 antibody is predicted to be specific to CAPS1 and not recognize CAPS2.
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. CAPS1 antibody can be used for detection of CAPS1 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	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. Juckusch WJ, Speidel D, Sigler A, et al. CAPS-1 and CAPS-2 are essential synaptic vesicle priming proteins. Cell 2007; 131:796-808. Rupnick M, Kreft M, Sikdat SK, et al. Rapid regulated dense-core vesicle exocytosis requires the CAPS protein. Proc. Natl. Acad. Sci. USA 2000; 97:5627-32.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4559P; CAPS1 Peptide Cat. No. PK-AB718-1463; Rat Brain Tissue Lysate

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