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CASC3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7264b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8K3W3
Other Accession	Q8K3X0, O15234, A5D7H5, NP_619601
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10332
Calculated MW	75770
Antigen Region	206-236

Additional Information

Gene ID	192160
Other Names	Protein CASC3, Cancer susceptibility candidate gene 3 protein homolog, Metastatic lymph node gene 51 protein homolog, MLN 51 homolog, Protein barentsz, Btz, mBtz, Casc3, Mln51
Target/Specificity	This CASC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 206-236 amino acids of human CASC3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	CASC3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Casc3
Synonyms	Mln51

Function	Required for pre-mRNA splicing as component of the spliceosome. Core component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junctions on mRNAs. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). Stimulates the ATPase and RNA-helicase activities of EIF4A3. Plays a role in the stress response by participating in cytoplasmic stress granules assembly and by favoring cell recovery following stress. Component of the dendritic ribonucleoprotein particles (RNPs) in hippocampal neurons. May play a role in mRNA transport. Binds spliced mRNA in sequence-independent manner, 20-24 nucleotides upstream of mRNA exon- exon junctions. Binds poly(G) and poly(U) RNA homomer.
Cellular Location	Cytoplasm. Cytoplasm, perinuclear region. Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:O15234}. Cytoplasm, Stress granule {ECO:0000250|UniProtKB:O15234}. Cytoplasm, Cytoplasmic ribonucleoprotein granule. Cell projection, dendrite. Note=Shuttles between the nucleus and the cytoplasm in a XPO1/CRM1-dependent manner (PubMed:12843282). Transported to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA. In nuclear speckles, colocalizes with MAGOH. Under stress conditions, colocalizes with FMR1 and TIA1, but not MAGOH and RBM8A EJC core factors, in cytoplasmic stress granules (By similarity). In the dendrites of hippocampal neurons, localizes to dendritic ribonucleoprotein granules (Probable) {ECO:0000250|UniProtKB:O15234, ECO:0000269|PubMed:12843282, ECO:0000305|PubMed:12843282}
Tissue Location	High levels in heart, brain, including hippocampus and cerebellum, liver, kidney and testis; lower levels in muscle, lung and spleen.

Background

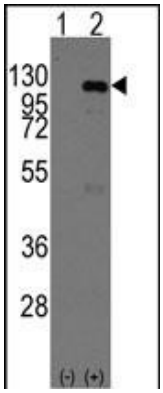
Component of the dendritic ribonucleoprotein particles (RNPs) in hippocampal neurons. May play a role in mRNA transport.

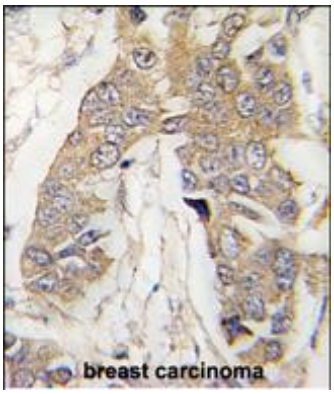
References

Macchi,P., J. Neurosci. 23 (13), 5778-5788 (2003)
Degot,S., Oncogene 21 (28), 4422-4434 (2002)

Images

Western blot analysis of CASC3 (arrow) using rabbit polyclonal CASC3 Antibody (Mouse C-term) (Cat.#AP7264b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the CASC3 gene (Lane 2) (Origene Technologies).





Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with CASC3 Antibody (C-term) (Cat.#AP7264b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.