

Anti-CAPRIN1 Reference Antibody (Toray patent anti-Caprin-1)

Recombinant Antibody
Catalog # APR10797

Product Information

Application	FC, Animal Model, Kinetics
Primary Accession	Q14444
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	78366

Additional Information

Target/Specificity	CAPRIN1
Endotoxin Conjugation	Unconjugated
Expression system	CHO Cell
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.

Protein Information

Name	CAPRIN1 {ECO:0000303 PubMed:31439799, ECO:0000312 HGNC:HGNC:6743}
Function	mRNA-binding protein that acts as a regulator of mRNAs transport, translation and/or stability, and which is involved in neurogenesis, synaptic plasticity in neurons and cell proliferation and migration in multiple cell types (PubMed: 17210633 , PubMed: 31439799 , PubMed: 35979925). Plays an essential role in cytoplasmic stress granule formation (PubMed: 35977029). Acts as an mRNA regulator by mediating formation of some phase-separated membraneless compartment: undergoes liquid-liquid phase separation upon binding to target mRNAs, leading to assemble mRNAs into cytoplasmic ribonucleoprotein granules that concentrate mRNAs with associated regulatory factors (PubMed: 31439799 , PubMed: 32302570 , PubMed: 32302571 , PubMed: 32302572 , PubMed: 34074792 , PubMed: 36040869 , PubMed: 36279435). Undergoes liquid-liquid phase separation following phosphorylation and interaction with FMR1, promoting formation of cytoplasmic ribonucleoprotein granules that concentrate mRNAs with factors that inhibit translation and mediate deadenylation of target mRNAs (PubMed: 31439799). In these cytoplasmic ribonucleoprotein granules,

CAPRIN1 mediates recruitment of CNOT7 deadenylase, leading to mRNA deadenylation and degradation (PubMed:[31439799](#)). Binds directly and selectively to MYC and CCND2 mRNAs (PubMed:[17210633](#)). In neuronal cells, directly binds to several mRNAs associated with RNA granules, including BDNF, CAMK2A, CREB1, MAP2, NTRK2 mRNAs, as well as to GRIN1 and KPNB1 mRNAs, but not to rRNAs (PubMed:[17210633](#)).

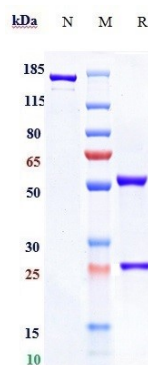
Cellular Location

Cytoplasm, Cytoplasmic ribonucleoprotein granule. Cytoplasm, cytosol. Cell projection, dendrite. Cell projection, lamellipodium. Note=Mediates formation and localizes to cytoplasmic ribonucleoprotein membraneless compartments (PubMed:31439799). Associated with RNA granules. At the leading edge of migrating fibroblasts, colocalizes with DDX3X (PubMed:28733330)

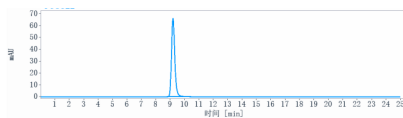
Tissue Location

Ubiquitous..

Images



Anti-CAPRIN1 Reference Antibody (Toray patent anti-Caprin-1) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%



The purity of Anti-CAPRIN1 Reference Antibody (Toray patent anti-Caprin-1) is more than 95% ,determined by SEC-HPLC.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.