10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Recombinant Antibody
Catalog # APR10797

Specification

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

Application	**FC, Kinetics, Animal Model**
Primary Accession	Q14444
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**150 KDa**

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

Target/Specificity
CAPRIN1

Endotoxin
< 0.001EU/ μg,determined by LAL method.

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.

Anti-CAPRIN1 Reference Antibody (Toray patent anti-Caprin-1) - 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:<a href="http://www.uniprot.org/citations/32302570"

target="_blank">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..

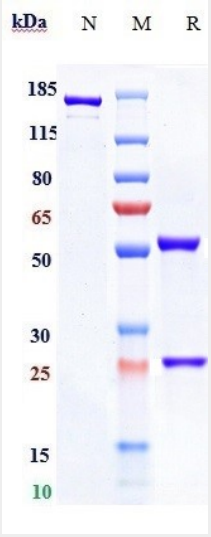
Anti-CAPRIN1 Reference Antibody (Toray patent anti-Caprin-1) - Protocols

Provided below are standard protocols that you may find useful for product applications.

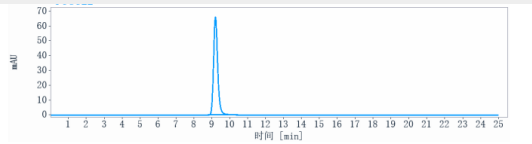
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



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.