

### **GPIP137 Antibody (C-term) Blocking Peptide**

Synthetic peptide Catalog # BP2463b

# **Specification**

### GPIP137 Antibody (C-term) Blocking Peptide - Product Information

**Primary Accession** 

<u>014444</u>

# GPIP137 Antibody (C-term) Blocking Peptide - Additional Information

**Gene ID 4076** 

#### **Other Names**

Caprin-1, Cell cycle-associated protein 1, Cytoplasmic activation- and proliferation-associated protein 1, GPI-anchored membrane protein 1, GPI-anchored protein p137, GPI-p137, p137GPI, Membrane component chromosome 11 surface marker 1, RNA granule protein 105, CAPRIN1, GPIAP1, GPIP137, M11S1, RNG105

# **Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/product/products/AP2463b>AP2463b</a> was selected from the C-term region of human GPIP137 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

# GPIP137 Antibody (C-term) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/17210633" target="\_blank">17210633</a></a>, PubMed:<a href="http://www.uniprot.org/citations/31439799" target="\_blank">31439799</a>, PubMed:<a href="http://www.uniprot.org/citations/35979925" target="\_blank">35979925</a>). Plays an essential role in cytoplasmic stress granule formation (PubMed:<a href="http://www.uniprot.org/citations/35977029" target="\_blank">35977029</a>). 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



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assemble mRNAs into cytoplasmic ribonucleoprotein granules that concentrate mRNAs with associated regulatory factors (PubMed:<a href="http://www.uniprot.org/citations/31439799" target=" blank">31439799</a>, PubMed:<a href="http://www.uniprot.org/citations/32302570" target=" blank">32302570</a>, PubMed:<a href="http://www.uniprot.org/citations/32302571" target=" blank">32302571</a>, PubMed:<a href="http://www.uniprot.org/citations/32302572" target=" blank">32302572</a>, PubMed:<a href="http://www.uniprot.org/citations/34074792" target=" blank">34074792</a>, PubMed:<a href="http://www.uniprot.org/citations/36040869" target="blank">36040869</a>, PubMed:<a href="http://www.uniprot.org/citations/36279435" target="blank">36279435</a>). 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:<a href="http://www.uniprot.org/citations/31439799" target=" blank">31439799</a>). In these cytoplasmic ribonucleoprotein granules, CAPRIN1 mediates recruitment of CNOT7 deadenvlase, leading to mRNA deadenvlation and degradation (PubMed:<a href="http://www.uniprot.org/citations/31439799" target=" blank">31439799</a>). Binds directly and selectively to MYC and CCND2 mRNAs (PubMed: <a href="http://www.uniprot.org/citations/17210633" target=" blank">17210633</a>). 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:<a href="http://www.uniprot.org/citations/17210633" target=" blank">17210633</a>).

#### **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...

# GPIP137 Antibody (C-term) Blocking Peptide - Protocols

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

#### Blocking Peptides

GPIP137 Antibody (C-term) Blocking Peptide - Images

### GPIP137 Antibody (C-term) Blocking Peptide - Background

GPIP137, attached to cell membranes via a GPI-anchor, may play a role in transporting nutrient from the gut lumen across the gutlining epithelial cell layer. Expression of this protein is ubiquitous.

# GPIP137 Antibody (C-term) Blocking Peptide - References

Gessler, M., et al., Genomics 32(1):169-170 (1996). Ellis, J.A., et al., J. Biol. Chem. 270(35):20717-20723 (1995).