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GNB2L1 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3450a

Specification

GNB2L1 Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	P63244
Other Accession	NP_006089.1, 10399, 14694 (mouse), 83427 (rat)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**35077**

GNB2L1 Antibody (internal region) - Additional Information

Gene ID 10399

Other Names
Guanine nucleotide-binding protein subunit beta-2-like 1, Cell proliferation-inducing gene 21 protein, Guanine nucleotide-binding protein subunit beta-like protein 12.3, Human lung cancer oncogene 7 protein, HLC-7, Receptor for activated C kinase, Receptor of activated protein kinase C 1, RACK1, Guanine nucleotide-binding protein subunit beta-2-like 1, N-terminally processed, GNB2L1

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GNB2L1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

GNB2L1 Antibody (internal region) - Protein Information

Name RACK1 (HGNC:4399)

Synonyms GNB2L1

Function

Scaffolding protein involved in the recruitment, assembly and/or regulation of a variety of signaling molecules. Interacts with a wide variety of proteins and plays a role in many cellular processes. Component of the 40S ribosomal subunit involved in translational repression (PubMed:23636399). Involved in the initiation of the ribosome quality control (RQC), a pathway that takes place when a ribosome has stalled during translation, by promoting ubiquitination of a subset of 40S ribosomal subunits (PubMed:28132843). Binds to and stabilizes activated protein kinase C (PKC), increasing PKC-mediated phosphorylation. May recruit activated PKC to the ribosome, leading to phosphorylation of EIF6. Inhibits the activity of SRC kinases including SRC, LCK and YES1. Inhibits cell growth by prolonging the G0/G1 phase of the cell cycle. Enhances phosphorylation of BMAL1 by PRKCA and inhibits transcriptional activity of the BMAL1-CLOCK heterodimer. Facilitates ligand-independent nuclear translocation of AR following PKC activation, represses AR transactivation activity and is required for phosphorylation of AR by SRC. Modulates IGF1R-dependent integrin signaling and promotes cell spreading and contact with the extracellular matrix. Involved in PKC-dependent translocation of ADAM12 to the cell membrane. Promotes the ubiquitination and proteasome- mediated degradation of proteins such as CLEC1B and HIF1A. Required for VANGL2 membrane localization, inhibits Wnt signaling, and regulates cellular polarization and oriented cell division during gastrulation. Required for PTK2/FAK1 phosphorylation and dephosphorylation. Regulates internalization of the muscarinic receptor CHRM2. Promotes apoptosis by increasing oligomerization of BAX and disrupting the interaction of BAX with the anti-apoptotic factor BCL2L. Inhibits TRPM6 channel activity. Regulates cell surface expression of some GPCRs such as TBXA2R. Plays a role in regulation of FLT1-mediated cell migration. Involved in the transport of ABCB4 from the Golgi to the apical bile canalicular membrane (PubMed:19674157). Promotes migration of breast carcinoma cells by binding to and activating RHOA (PubMed:20499158). Acts as an adapter for the dephosphorylation and inactivation of AKT1 by promoting recruitment of PP2A phosphatase to AKT1 (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein. Cytoplasm. Cytoplasm, perinuclear region. Nucleus. Perikaryon {ECO:0000250|UniProtKB:P68040}. Cell projection, dendrite {ECO:0000250|UniProtKB:P68040}. Cell projection, phagocytic cup. Note=Recruited to the plasma membrane through interaction with KRT1 which binds to membrane-bound ITGB1 (PubMed:17956333). Also associated with the membrane in oncogene- transformed cells (PubMed:11884618). PKC activation induces translocation from the perinuclear region to the cell periphery (PubMed:11279199). In the brain, detected mainly in cell bodies and dendrites with little expression in axonal fibers or nuclei (By similarity). Localized to phagocytic cups following infection by Y.pestis (PubMed:21347310). {ECO:0000250|UniProtKB:P68040, ECO:0000269|PubMed:11279199, ECO:0000269|PubMed:11884618, ECO:0000269|PubMed:17956333, ECO:0000269|PubMed:21347310}

Tissue Location
In the liver, expressed at higher levels in activated hepatic stellate cells than in hepatocytes or Kupffer cells Up-regulated in hepatocellular carcinomas and in the adjacent non-tumor liver tissue.

GNB2L1 Antibody (internal region) - Protocols

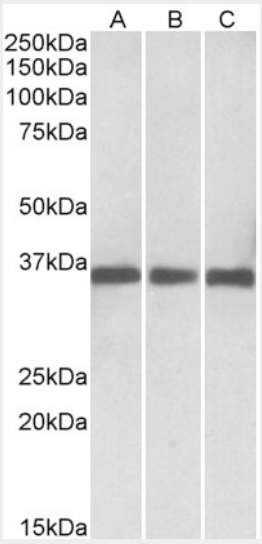
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

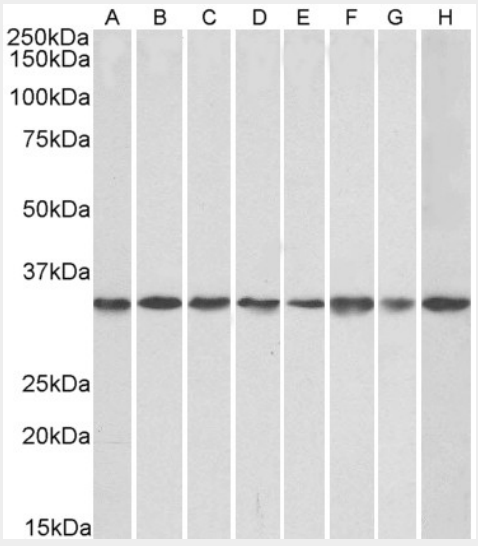
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- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GNB2L1 Antibody (internal region) - Images



AF3450a (0.1 µg/ml) staining of Human Lymph Node (A), Mouse Spleen (B) and Rat Spleen (C) lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF3450a (0.1 µg/ml) staining of NIH3T3 (A), HeK293 (B), HeLa (C, A431(D), A549 (E), MCF7 (F), Jurkat (G), K562 (H) lysates (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

GNB2L1 Antibody (internal region) - References

Epigenetic regulation of BDNF expression via the scaffolding protein RACK1. He DY, Neasta J, Ron D, The Journal of biological chemistry 2010 Jun 285 (25): 19043-50. PMID: 20410295