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Gnb2l1 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14655

Product Information

Application	WB
Primary Accession	P68040
Other Accession	NM_008143, NP_032169
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Guinea Pig, Bovine, Sheep
Predicted	Human, Zebrafish, Chicken, Dog, Guinea Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35077

Additional Information

Gene ID	14694
Alias Symbol	AL033335, GB-like, Gnb2-rs1, Rack1, p205
Other Names	Guanine nucleotide-binding protein subunit beta-2-like 1, 12-3, Receptor for activated C kinase, Receptor of activated protein kinase C 1, RACK1, p205, Guanine nucleotide-binding protein subunit beta-2-like 1, N-terminally processed, Gnb2l1, Gnb2-rs1
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Gnb2l1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Gnb2l1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Rack1 {ECO:0000312|MGI:MGI:101849}
Synonyms	Gnb2-rs1, Gnb2l1
Function	Scaffolding protein involved in the recruitment, assembly and/or regulation of a variety of signaling molecules (PubMed:18258429, PubMed:20093473, PubMed:21262816, PubMed:33505023, PubMed:36517592, PubMed:7968370). Interacts with a wide variety of proteins and plays a role in many cellular processes (PubMed:18258429, PubMed:20093473, PubMed:21262816, PubMed:36517592, PubMed:7968370). Component of the

40S ribosomal subunit involved in translational repression (PubMed:36517592). 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 (By similarity). Binds to and stabilizes activated protein kinase C (PKC), increasing PKC-mediated phosphorylation (By similarity). May recruit activated PKC to the ribosome, leading to phosphorylation of EIF6 (By similarity). Inhibits the activity of SRC kinases including SRC, LCK and YES1 (By similarity). Inhibits cell growth by prolonging the G0/G1 phase of the cell cycle (By similarity). Enhances phosphorylation of BMAL1 by PRKCA and inhibits transcriptional activity of the BMAL1-CLOCK heterodimer (PubMed:20093473). Facilitates ligand-independent nuclear translocation of AR following PKC activation, represses AR transactivation activity and is required for phosphorylation of AR by SRC (By similarity). Modulates IGF1R-dependent integrin signaling and promotes cell spreading and contact with the extracellular matrix (By similarity). Involved in PKC-dependent translocation of ADAM12 to the cell membrane (By similarity). Promotes the ubiquitination and proteasome-mediated degradation of proteins such as CLEC1B and HIF1A (By similarity). Required for VANGL2 membrane localization, inhibits Wnt signaling, and regulates cellular polarization and oriented cell division during gastrulation (PubMed:21262816). Required for PTK2/FAK1 phosphorylation and dephosphorylation (By similarity). Regulates internalization of the muscarinic receptor CHRM2 (By similarity). Promotes apoptosis by increasing oligomerization of BAX and disrupting the interaction of BAX with the anti-apoptotic factor BCL2L (By similarity). Inhibits TRPM6 channel activity (PubMed:18258429). Regulates cell surface expression of some GPCRs such as TBXA2R (By similarity). Plays a role in regulation of FLT1-mediated cell migration (By similarity). Involved in the transport of ABCB4 from the Golgi to the apical bile canalicular membrane (By similarity). Acts as an adapter for the dephosphorylation and inactivation of AKT1 by promoting recruitment of PP2A phosphatase to AKT1 (PubMed:33505023).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P63244}; Peripheral membrane protein {ECO:0000250|UniProtKB:P63244}. Cytoplasm. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P63244}. Nucleus Perikaryon. Cell projection, dendrite. Note=Recruited to the plasma membrane through interaction with KRT1 which binds to membrane-bound ITGB1. PKC activation induces translocation from the perinuclear region to the cell periphery (By similarity). In the brain, detected mainly in cell bodies and dendrites with little expression in axonal fibers or nuclei (PubMed:16414032). {ECO:0000250|UniProtKB:P63244, ECO:0000269|PubMed:16414032}

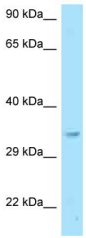
Tissue Location

Strongly and ubiquitously expressed in the embryonic and early postnatal brain. At 11.5 dpc, expressed in a high- dorsal to low-ventral gradient throughout the brain. At 13.5 dpc, most abundant in the telecephalon. At 18.5 dpc, expressed most abundantly in layers 1-4 of the cortex, striatum, hippocampus, dentate gyrus, and specific thalamic nuclei. This expression decreases during postnatal development and is localized in the dentate gyrus, habenula, piriform cortex, paraventricular nucleus of the hypothalamus and supraoptic nucleus of the adult brain.

References

Imai Y.,et al.Brain Res. Mol. Brain Res. 24:313-319(1994).
Raj N.B.K.,et al.Submitted (SEP-1993) to the EMBL/GenBank/DDBJ databases.
Carninci P.,et al.Science 309:1559-1563(2005).
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



WB Suggested Anti-Gnb2l1 Antibody Titration: 1.0 µg/ml
Positive Control: Mouse Liver

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