Datasheet for ABIN7549869

NPRL2 Protein (AA 1-380) (His tag)

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Overview

Quantity:	1 mg
Target:	NPRL2
Protein Characteristics:	AA 1-380
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NPRL2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant NPRL2 Protein expressed in mammalian cells.
Sequence:	MGSGCRIECI FFSEFHPTLG PKITYQVPED FISRELFDTV QVYIITKPEL QNKLITVTAM EKKLIGCPVC IEHKKYSRNA LLFNLGFVCD AQAKTCALEP IVKKLAGYLT TLELESSFVS MEESKQKLVP IMTILLEELN ASGRCTLPID ESNTIHLKVI EQRPDPPVAQ EYDVPVFTKD KEDFFNSQWD LTTQQILPYI DGFRHIQKIS AEADVELNLV RIAIQNLLYY GVVTLVSILQ YSNVYCPTPK VQDLVDDKSL QEACLSYVTK QGHKRASLRD VFQLYCSLSP GTTVRDLIGR HPQQLQHVDE RKLIQFGLMK NLIRRLQKYP VRVTREEQSH PARLYTGCHS YDEICCKTGM SYHELDERLE NDPNIIICWK **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NPRL2
Alternative Name:	NPRL2 (NPRL2 Products)
Background:	GATOR1 complex protein NPRL2 (Gene 21 protein) (G21 protein) (Nitrogen permease regulator 2-like protein) (NPR2-like protein) (Tumor suppressor candidate 4),FUNCTION: Catalytic component of the GATOR1 complex, a multiprotein complex that functions as an inhibitor of the amino acid-sensing branch of the mTORC1 pathway (PubMed:23723238, PubMed:29590090, PubMed:35338845, PubMed:38006878). In response to amino acid depletion, the GATOR1 complex has GTPase activating protein (GAP) activity and strongly increases GTP hydrolysis by RagA/RRAGA (or RagB/RRAGB) within heterodimeric Rag complexes, thereby turning them into their inactive GDP-bound form, releasing mTORC1 from lysosomal surface and inhibiting mTORC1 signaling (PubMed:23723238, PubMed:29590090, PubMed:35338845). In the presence of abundant amino acids, the GATOR1 complex is ubiquitinated and inhibited by GATOR2 (PubMed:23723238, PubMed:36528027). Within the GATOR1 complex, NPRL2 constitutes the catalytic subunit that mediates the GTPase activator activity and under methionine-sufficient conditions, the GTPase activator activity is inhibited by PRMT1 through methylation and consequently inducing timely mTORC1 activation

Target Details

	(PubMed:30651352, PubMed:35338845, PubMed:27173016). {ECO:0000269|PubMed:23723238, ECO:0000269|PubMed:27173016, ECO:0000269|PubMed:29590090, ECO:0000269|PubMed:30651352, ECO:0000269|PubMed:35338845, ECO:0000269|PubMed:36528027, ECO:0000269|PubMed:38006878}., FUNCTION: Suppresses Src-dependent tyrosine phosphorylation and activation of PDPK1 and its downstream signaling (PubMed:18616680). Down-regulates PDPK1 kinase activity by interfering with tyrosine phosphorylation at 'Tyr-9', 'Tyr-373' and 'Tyr-376' residues (PubMed:18616680). May act as a tumor suppressor (PubMed:18616680). Suppresses cell growth and enhances sensitivity to various anticancer drugs (PubMed:18616680). {ECO:0000269|PubMed:18616680}.
Molecular Weight:	43.7 kDa
UniProt:	Q8WTW4

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months