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NPRL3 Antibody (N-Term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21877a

Specification

NPRL3 Antibody (N-Term) - Product Information

Application	**WB,E**
Primary Accession	Q12980
Reactivity	**Human**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**63605**

NPRL3 Antibody (N-Term) - Additional Information

Gene ID 8131

Other Names
Nitrogen permease regulator 3-like protein, -14 gene protein, Alpha-globin regulatory element-containing gene protein, Protein CGTHBA, NPRL3, C16orf35, CGTHBA, MARE

Target/Specificity
This NPRL3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 86-117 amino acids from human NPRL3.

Dilution
WB~~1:2000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
NPRL3 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

NPRL3 Antibody (N-Term) - Protein Information

Name NPRL3 {ECO:0000303|PubMed:26505888, ECO:0000312|HGNC:HGNC:14124}

Function As a component of the GATOR1 complex functions as an inhibitor of the amino acid-sensing branch of the mTORC1 pathway (PubMed:23723238, PubMed:29590090,

PubMed:35338845). 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 negatively regulated by GATOR2, the other GATOR subcomplex, in this amino acid-sensing branch of the TORC1 pathway (PubMed:23723238).

Cellular Location
Lysosome membrane. Note=Localization to lysosomes is mediated by the KICSTOR complex and is amino acid-independent.

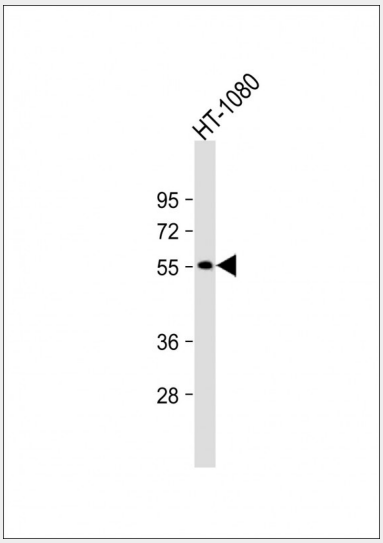
Tissue Location
Widely expressed. Expressed in the frontal lobe cortex as well as in the temporal, parietal, and occipital lobes (PubMed:26505888, PubMed:27173016).

NPRL3 Antibody (N-Term) - 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

NPRL3 Antibody (N-Term) - Images



Anti-NPRL3 Antibody (N-Term) at 1:2000 dilution + HT-1080 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 64 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

NPRL3 Antibody (N-Term) - Background

As a component of the GATOR1 complex, inhibitor of the amino acid-sensing branch of the TORC1 pathway. The GATOR1 complex strongly increases GTP hydrolysis by RRAGA and RRAGB within RRAGC- containing heterodimers, thereby deactivating RRAGs, releasing mTORC1 from lysosomal surface and inhibiting mTORC1 signaling.

NPRL3 Antibody (N-Term) - References

Vyas P.,et al.Genomics 29:679-689(1995).
De Gobbi M.,et al.Science 312:1215-1217(2006).
Martin J.,et al.Nature 432:988-994(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Neklesa T.K.,et al.PLoS Genet. 5:E1000515-E1000515(2009).