10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NUDT3 Antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI15627

Specification

NUDT3 Antibody - middle region - Product Information

Application	**WB**
Primary Accession	O95989
Other Accession	NM_006703, NP_006694
Reactivity	**Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog**
Predicted	**Human, Mouse, Rat, Rabbit, Pig, Horse, Bovine, Guinea Pig, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**19kDa KDa**

NUDT3 Antibody - middle region - Additional Information

Gene ID 11165

Alias Symbol	**DIPP, DIPP-1, DIPP1**

Other Names
Diphosphoinositol polyphosphate phosphohydrolase 1, DIPP-1, 3.6.1.52, Diadenosine 5', 5'''-P1, P6-hexaphosphate hydrolase 1, 3.6.1.-, Nucleoside diphosphate-linked moiety X motif 3, Nudix motif 3, NUDT3, DIPP, DIPP1

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-NUDT3 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
NUDT3 Antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

NUDT3 Antibody - middle region - Protein Information

Name NUDT3 (HGNC:8050)

Synonyms DIPP, DIPP1

Function
Cleaves a beta-phosphate from the diphosphate groups in PP- InsP5 (diphosphoinositol pentakisphosphate) and [PP]2-InsP4 (bisdiphosphoinositol tetrakisphosphate), suggesting that it may play a role in signal transduction (PubMed:<a

href="http://www.uniprot.org/citations/10585413" target="_blank">10585413, PubMed:12370170, PubMed:9822604). InsP6 (inositol hexakisphosphate) is not a substrate (PubMed:9822604). Acts as a negative regulator of the ERK1/2 pathway (By similarity). Also able to catalyze the hydrolysis of dinucleoside oligophosphates, with diadenosine 5',5'''-P1,P6-hexaphosphate (Ap6A) and diadenosine 5',5'''- P1,P5-pentaphosphate (Ap5A) being the preferred substrates (PubMed:10419486, PubMed:12370170). The major reaction products are ADP and p4a from Ap6A and ADP and ATP from Ap5A (PubMed:12370170). Also able to hydrolyze 5-phosphoribose 1-diphosphate (PubMed:12370170). Acts as a decapping enzyme that modulates the stability of a subset of mRNAs implicated in cell motility (PubMed:26932476). Hydrolyzes monomethylated capped RNA after both the alpha- and beta-phosphates generating m7GMP + ppRNA and m7GDP + pRNA (PubMed:32727897). Can hydrolyze unmethylated capped RNAs (By similarity). Divalent cations zinc, magnesium and manganese determine its substrate specificity (PubMed:34788624). Exhibits diphosphoinositol polyphosphate phosphohydrolase in the presence of magnesium ions, diadenosine hexaphosphate hydrolase activity in the presence of manganese ions and endopolyphosphatase activity in the presence of zinc ions (PubMed:34788624). Plays an important role in limiting DNA damage and maintaining cell survival upon oxidative stress via its endopolyphosphatase activity (PubMed:34788624).

Cellular Location
Cytoplasm. Nucleus

Tissue Location
Widely expressed. Expressed at higher level in brain, heart, pancreas and liver. Also expressed in placenta, lung and kidney.

NUDT3 Antibody - middle region - 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

NUDT3 Antibody - middle region - Images

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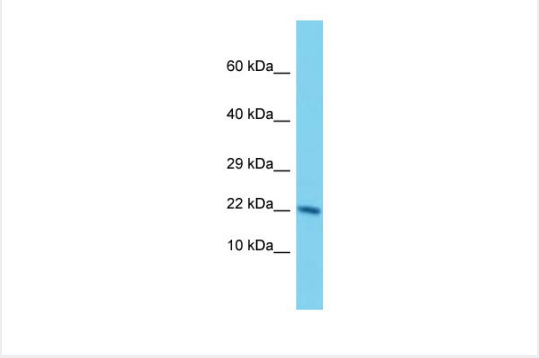

Host: Rabbit
Target Name: NUDT3
Sample Tissue: Hela Whole cell lysate
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Antibody Dilution: 1.0µg/mlNUDT3 is supported by BioGPS gene expression data to be expressed in HeLa

NUDT3 Antibody - middle region - References

Safrany S.T.,et al.EMBO J. 17:6599-6607(1998).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mungall A.J.,et al.Nature 425:805-811(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.