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

ZCCHC11 / PAPD3 Antibody (C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2236a

Specification

ZCCHC11 / PAPD3 Antibody (C-Term) - Product Information

Application	**IHC**
Primary Accession	Q5TAX3
Other Accession	NP_001009881.1, NP_056084.1, NP_001009882.1, 23318
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**185166**

ZCCHC11 / PAPD3 Antibody (C-Term) - Additional Information

Gene ID 23318

Other Names
Terminal uridylyltransferase 4, TUTase 4, 2.7.7.52, Zinc finger CCHC domain-containing protein 11, ZCCHC11, KIAA0191, TUT4

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
ZCCHC11 / PAPD3 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

ZCCHC11 / PAPD3 Antibody (C-Term) - Protein Information

Name TUT4 (HGNC:28981)

Function
Uridylyltransferase that mediates the terminal uridylation of mRNAs with short (less than 25 nucleotides) poly(A) tails, hence facilitating global mRNA decay (PubMed:25480299, PubMed:31036859). Essential for both oocyte maturation and fertility. Through 3' terminal uridylation of mRNA, sculpts, with TUT7,

the maternal transcriptome by eliminating transcripts during oocyte growth (By similarity). Involved in microRNA (miRNA)-induced gene silencing through uridylation of deadenylated miRNA targets. Also functions as an integral regulator of microRNA biogenesis using 3 different uridylation mechanisms (PubMed:25979828). Acts as a suppressor of miRNA biogenesis by mediating the terminal uridylation of some miRNA precursors, including that of let-7 (pre-let-7), miR107, miR-143 and miR-200c. Uridylated miRNAs are not processed by Dicer and undergo degradation. Degradation of pre-let-7 contributes to the maintenance of embryonic stem (ES) cell pluripotency (By similarity). Also catalyzes the 3' uridylation of miR- 26A, a miRNA that targets IL6 transcript. This abrogates the silencing of IL6 transcript, hence promoting cytokine expression (PubMed:19703396). In the absence of LIN28A, TUT7 and TUT4 monouridylate group II pre-miRNAs, which includes most of pre-let7 members, that shapes an optimal 3' end overhang for efficient processing (PubMed:25979828). Adds oligo-U tails to truncated pre- miRNAS with a 5' overhang which may promote rapid degradation of non-functional pre-miRNA species (PubMed:25979828). May also suppress Toll- like receptor-induced NF-kappa-B activation via binding to T2BP (PubMed:16643855). Does not play a role in replication-dependent histone mRNA degradation (PubMed:18172165). Due to functional redundancy between TUT4 and TUT7, the identification of the specific role of each of these proteins is difficult (PubMed:25979828, PubMed:25480299, PubMed:16643855, PubMed:19703396, PubMed:18172165) (By similarity). TUT4 and TUT7 restrict retrotransposition of long interspersed element-1 (LINE-1) in cooperation with MOV10 counteracting the RNA chaperonne activity of L1RE1. TUT7 uridylates LINE-1 mRNAs in the cytoplasm which inhibits initiation of reverse transcription once in the nucleus, whereas uridylation by TUT4 destabilizes mRNAs in cytoplasmic ribonucleoprotein granules (PubMed:30122351).

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, Cytoplasmic ribonucleoprotein granule. Note=Mainly cytoplasmic (PubMed:19703396, PubMed:25480299). Translocates into the cytoplasm following treatment of the cell with LPS (PubMed:16643855). Co-enriched in cytoplasmic foci with MOV10 (PubMed:30122351)

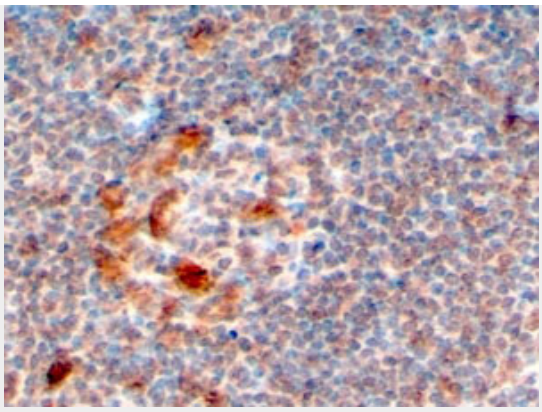
ZCCHC11 / PAPD3 Antibody (C-Term) - Protocols

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

ZCCHC11 / PAPD3 Antibody (C-Term) - Images

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



AF2236a (4 µg/ml) staining of paraffin embedded Human Lymph Node. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.

ZCCHC11 / PAPD3 Antibody (C-Term) - Background

This antibody is expected to recognize all 3 reported isoforms (as represented by NP_001009881.1; NP_056084.1; NP_001009882.1)

ZCCHC11 / PAPD3 Antibody (C-Term) - References

A novel Zinc finger protein, ZCCHC11, interacts with TIFA and modulates TLR signaling. Minoda Y, Saeki K, Aki D, Takaki H, Sanada T, Koga K, Kobayashi T, Takaesu G, Yoshimura A. Biochem Biophys Res Commun. 2006 Jun 9;344(3):1023-30.; Erratum
in: Biochem Biophys Res Commun. 2007 Feb 23;353(4):1121. PMID: 16643855