

**ZCH11 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP57152****Specification**

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**ZCH11 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC
Primary Accession	<a href="#">Q5TAX3</a>
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	185166

**ZCH11 Polyclonal Antibody - Additional Information****Gene ID** 23318**Other Names**

Terminal uridylyltransferase 4, TUTase 4, 2.7.7.52, Zinc finger CCHC domain-containing protein 11, TUT4 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=28981](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=28981))  
HGNC:28981

**Format**

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**ZCH11 Polyclonal Antibody - 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](http://www.uniprot.org/citations/25480299), PubMed:[31036859](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/19703396" target="\_blank">19703396</a>). 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:<a href="http://www.uniprot.org/citations/25979828" target="\_blank">25979828</a>). Adds oligo-U tails to truncated pre-miRNAs with a 5' overhang which may promote rapid degradation of non-functional pre-miRNA species (PubMed:<a href="http://www.uniprot.org/citations/25979828" target="\_blank">25979828</a>). May also suppress Toll-like receptor-induced NF-kappa-B activation via binding to T2BP (PubMed:<a href="http://www.uniprot.org/citations/16643855" target="\_blank">16643855</a>). Does not play a role in replication-dependent histone mRNA degradation (PubMed:<a href="http://www.uniprot.org/citations/18172165" target="\_blank">18172165</a>). Due to functional redundancy between TUT4 and TUT7, the identification of the specific role of each of these proteins is difficult (PubMed:<a href="http://www.uniprot.org/citations/25979828" target="\_blank">25979828</a>, PubMed:<a href="http://www.uniprot.org/citations/25480299" target="\_blank">25480299</a>, PubMed:<a href="http://www.uniprot.org/citations/16643855" target="\_blank">16643855</a>, PubMed:<a href="http://www.uniprot.org/citations/19703396" target="\_blank">19703396</a>, PubMed:<a href="http://www.uniprot.org/citations/18172165" target="\_blank">18172165</a>) (By similarity). TUT4 and TUT7 restrict retrotransposition of long interspersed element-1 (LINE-1) in cooperation with MOV10 counteracting the RNA chaperone 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:<a href="http://www.uniprot.org/citations/30122351" target="\_blank">30122351</a>).

#### **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)

#### **ZCH11 Polyclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **ZCH11 Polyclonal Antibody - Images**