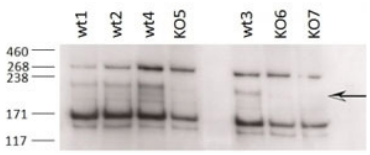
# ZCCHC11 Antibody / RNA Uridylation Enzyme (R35337)

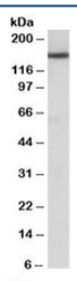
| Catalog No. | Formulation | Size |
|---|---|---|
| R35337-100UG | 0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Goat |
| **Clonality** | Polyclonal (goat origin) |
| **Isotype** | Goat Ig |
| **Purity** | Antigen affinity |
| **Gene ID** | 230594 |
| **Applications** | Western blot: 0.03-0.1ug/ml<br>ELISA (peptide) LOD: 1:32000 |
| **Limitations** | This ZCCHC11 Antibody / RNA Uridylation Enzyme is available for research use only. |




ZCCHC11 Antibody Knockout Tissue WB. Western blot analysis of testis tissue lysates from wild-type and Zcchc11 knockout 8-9 week old C57BL/6 mice using goat polyclonal ZCCHC11 antibody at 0.2 ug/ml. Multiple endogenous bands are detected in wild-type samples with marked reduction in knockout tissues, supporting selective detection of ZCCHC11 / TUT4, an RNA uridylation enzyme involved in miRNA processing and post-transcriptional RNA regulation.




ZCCHC11 Antibody Rat Brain WB. Western blot analysis of rat brain tissue lysate using goat polyclonal ZCCHC11 antibody at 0.05 ug/ml. A prominent band is detected near 163 kDa, consistent with the predicted and observed molecular weight of ZCCHC11 / TUT4, a terminal uridylyl transferase involved in miRNA maturation and post-transcriptional RNA regulation within neural tissues.

## Description

Zinc finger CCHC domain-containing protein 11 (ZCCHC11) is an RNA-modifying enzyme encoded by the ZCCHC11 gene and functions as a terminal uridylyl transferase involved in post-transcriptional RNA regulation. ZCCHC11 Antibody / RNA Uridylation Enzyme is useful for studying miRNA maturation, RNA stability, stem cell signaling, neural development, and post-transcriptional gene regulation. ZCCHC11 is also widely known as TUT4 or Terminal uridylyl transferase 4 and belongs to a family of non-canonical poly(A) polymerase-related enzymes that regulate RNA processing through uridylation-dependent mechanisms.

ZCCHC11 antibody, also referred to as TUT4 antibody, PAPD3 antibody, or Terminal uridylyl transferase 4 antibody in the literature, recognizes a protein that catalyzes uridine addition to specific RNA substrates including precursor miRNAs and messenger RNAs. One of the best-characterized functions of ZCCHC11 involves regulation of the LIN28-let-7 pathway, where TUT4-mediated uridylation promotes degradation or altered processing of let-7 precursor miRNAs. Through these activities, ZCCHC11 contributes to developmental timing, stemness regulation, cellular differentiation, and tumor-associated signaling pathways.

ZCCHC11 localizes predominantly within the cytoplasm where it participates in RNA processing complexes regulating RNA turnover and post-transcriptional control. The enzyme has been implicated in embryonic development, germ cell biology, neuronal differentiation, immune signaling, and cancer progression. Altered ZCCHC11 activity may influence proliferation, differentiation, and stress adaptation through effects on miRNA maturation and transcript stability. Because miRNA regulatory networks contribute broadly to oncogenesis and developmental biology, ZCCHC11 remains an important target in studies of RNA metabolism and gene expression regulation.

TUT4 functions closely with LIN28 family proteins and additional RNA-binding cofactors involved in selective miRNA targeting and degradation pathways. The enzyme has additionally been linked to antiviral responses, inflammatory signaling, and regulation of RNA quality-control mechanisms. Expression of ZCCHC11 has been observed in reproductive tissues, neural tissues, and metabolically active cell populations, consistent with its roles in developmental and regulatory RNA networks. In western blot studies, endogenous ZCCHC11 signal is commonly detected in testis and brain-derived tissue lysates.

ZCCHC11 is encoded on human chromosome 1p35 and produces a large multidomain RNA-binding protein containing zinc finger motifs and nucleotidyl transferase catalytic domains characteristic of terminal uridylyl transferases. The protein functions within cytoplasmic RNA regulatory complexes controlling transcript maturation, degradation, and post-transcriptional adaptation. ZCCHC11 activity contributes to maintenance of cellular differentiation states and dynamic regulation of RNA processing under developmental and stress-responsive conditions.

This goat polyclonal ZCCHC11 antibody has been supported using knockout-validated western blot approaches in mouse testis tissue together with endogenous tissue western blot analysis in rat brain samples. Knockout validation demonstrates marked reduction or loss of the expected ZCCHC11 signal in knockout tissue lysates compared to wild-type controls, supporting selective detection of endogenous TUT4. These validation data support use of the antibody in studies involving RNA metabolism, miRNA processing, developmental regulation, and neural or reproductive tissue biology.

This antibody is part of a collection of knockdown validated antibodies that have been functionally assessed using gene silencing approaches to support target-specific detection.

## Application Notes

Optimal dilution of the ZCCHC11 Antibody / RNA Uridylation Enzyme should be determined by the researcher.

## Immunogen

Amino acids QKSAEKQGDLTPSET were used as the immunogen for this ZCCHC11 antibody.

## Storage

Aliquot and store the ZCCHC11 antibody at -20oC.

## Alternate Names

TUT4 antibody, PAPD3 antibody, Terminal uridylyl transferase 4 antibody, Zinc finger CCHC domain-containing protein 11 antibody, ZCCHC11 RNA processing antibody


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