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

ZNF598 Rabbit pAb

Catalog # AP99249

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q86UK7
Other Accession	Q86UK7
Predicted	Rat, Pig, Human, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98637
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ZNF598
Epitope Specificity	781-904/904
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Similarity : Contains 1 C2H2-type zinc finger. Contains 1 RING-type zinc finger.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Zinc-finger proteins bind nucleic acids and play important roles in various cellular functions, including cell proliferation, differentiation, and apoptosis. This protein and Grb10-interacting GYF protein 2 have been identified as a components of the mammalian 4EHP (m4EHP) complex. The complex is thought to function as a translation repressor in embryonic development. [provided by RefSeq, Oct 2012].

Additional Information

Gene ID	90850
Other Names	HEL2; Ntrap; Znf598; ZN598_HUMAN; Zinc finger protein 598; 2.3.2.27; ZN598_MOUSE; Zfp598; zinc finger protein 598, E3 ubiquitin ligase; Histone E3 Ligase 2 homolog
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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.

Protein Information

Name	ZNF598 {ECO:0000303|PubMed:28132843,

ECO:0000312|HGNC:HGNC:28079}

Function

E3 ubiquitin-protein ligase that plays a key role in the ribosome quality control (RQC), a pathway that takes place when a ribosome has stalled during translation, leading to degradation of nascent peptide chains (PubMed:28065601, PubMed:28132843, PubMed:28685749, PubMed:32099016, PubMed:32579943, PubMed:33581075). ZNF598 is activated when ribosomes are stalled within an mRNA following translation of prematurely polyadenylated mRNAs (PubMed:28065601, PubMed:28132843, PubMed:28685749). Acts as a ribosome collision sensor: specifically recognizes and binds collided di-ribosome, which arises when a trailing ribosome encounters a slower leading ribosome, leading to terminally arrest translation (PubMed:28065601, PubMed:28132843, PubMed:28685749, PubMed:30293783). Following binding to colliding ribosomes, mediates monoubiquitination of 40S ribosomal proteins RPS10/eS10 and RPS3/uS3, and 'Lys-63'-linked polyubiquitination of RPS20/uS10 (PubMed:28065601, PubMed:28132843, PubMed:28685749). Polyubiquitination of RPS20/uS10 promotes recruitment of the RQT (ribosome quality control trigger) complex, which drives the disassembly of stalled ribosomes, followed by degradation of nascent peptides (PubMed:32099016, PubMed:32579943, PubMed:36302773). E3 ubiquitin-protein ligase activity is dependent on the E2 ubiquitin-conjugating enzyme UBE2D3 (PubMed:28685749). Also acts as an adapter that recruits the 4EHP-GYF2 complex to mRNAs (PubMed:22751931, PubMed:32726578). Independently of its role in RQC, may also act as a negative regulator of interferon-stimulated gene (ISG) expression (PubMed:29719242).

Cellular Location

Cytoplasm, cytosol.

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