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RNF10 Rabbit pAb

Catalog # AP99994

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8N5U6
Other Accession	Q8N5U6
Reactivity	Rat
Predicted	Pig, Human, Mouse, Chicken, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	89927
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RNF10
Epitope Specificity	221-320/811
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the RNF10 family. Contains 1 RING-type zinc finger.
SUBUNIT	Interacts with MEOX2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. RNF10 (ring finger protein 10), also known as RIE2, is an 811 amino acid protein that localizes to the cytoplasm and contains one RING-type zinc finger. Existing as multiple alternatively spliced isoforms, RNF10 interacts with MOX-2 and is thought to regulate its transcription in schwann cells, possibly playing a role in myelin formation. The gene encoding RNF10 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

Additional Information

Gene ID	9921
Other Names	RIE2; mKIAA0262; RNF10_HUMAN; RNF10; RING finger protein 10; 2.3.2.27; KIAA0262; RNF10_MOUSE; Sid 2705; Sid2705; RNF10_RAT
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

Storage	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	RNF10 {ECO:0000303|PubMed:10697961, ECO:0000312|HGNC:HGNC:10055}
Function	E3 ubiquitin-protein ligase that catalyzes monoubiquitination of 40S ribosomal proteins RPS2/us5 and RPS3/us3 in response to ribosome stalling (PubMed:34348161, PubMed:34469731, PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). Part of a ribosome quality control that takes place when ribosomes have stalled during translation initiation (iRQC) or elongation (PubMed:34348161, PubMed:34469731, PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). The ribosome quality control is activated in response to ribosome subunit imbalance, amino acid starvation or downstream the EIF2AK4/GCN2-mediated integrated stress response (ISR) (PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). RNF10 acts by mediating monoubiquitination of RPS2/us5 and RPS3/us3: monoubiquitinated RPS2/us5 and RPS3/us3 are then recognized by RIOK3 kinase, leading to 18S non-functional rRNA decay and degradation of the 40S ribosomal subunit (PubMed:34348161, PubMed:34469731, PubMed:39609413, PubMed:39947182, PubMed:39947183, PubMed:40022732). The action of RNF10 in iRQC is counteracted by USP10 (PubMed:34469731).
Cellular Location	Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q5XI59}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.