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TRIM37 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP56378

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	O94972
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	107906
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TRIM37
Epitope Specificity	601-700/964
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm > perinuclear region. Peroxisome. Found in vesicles of the peroxisome. Aggregates as aggresomes, a perinuclear region where certain misfolded or aggregated proteins are sequestered for proteasomal degradation.
SIMILARITY	Belongs to the TRIM/RBCC family. Contains 1 B box-type zinc finger. Contains 1 MATH domain. Contains 1 RING-type zinc finger.
Post-translational modifications	Auto-ubiquitinated.
DISEASE	Defects in TRIM37 are the cause of mulibrey nanism (MUL) [MIM:253250]; also known as muscle-liver-brain-eye nanism. MUL is an autosomal recessive disorder that involves several tissues of mesodermal origin, implying a defect in a highly pleiotropic gene. Characteristic features include severe growth failure of prenatal onset and constrictive pericardium with consequent hepatomegaly. In addition, muscle hypotonia, J-shaped sella turcica, yellowish dots in the ocular fundi, typical dysmorphic features and hypoplasia of various endocrine glands causing hormonal deficiency are common.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TRIM37 is a protein that localizes to peroxisomes and contains a tripartite motif (TRIM) and a tumor necrosis factor-receptor associated factor (TRAF) domain. The protein and gene forms of TRIM37 are highly conserved between human and mouse. TRIM37 is expressed at a low level in the liver, ovary, heart, lung, skeletal muscle, and kidney, while it is highly expressed in the testis and brain, where it may act as an E3 ubiquitin ligase. Mutations in the TRIM37 gene result in Mulibrey nanism, an autosomal recessive prenatal-onset growth disorder that causes characteristic dysmorphic craniofacial features, heart disease, cardiopathy, failure of sexual maturation, and hepatomegaly.

Additional Information

Gene ID	4591
Other Names	E3 ubiquitin-protein ligase TRIM37, 2.3.2.27, Mulibrey nanism protein, RING-type E3 ubiquitin transferase TRIM37, Tripartite motif-containing protein 37, TRIM37 (HGNC:7523)
Target/Specificity	Ubiquitous.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 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.

Protein Information

Name	TRIM37 {ECO:0000303|PubMed:28724525, ECO:0000312|HGNC:HGNC:7523}
Function	E3 ubiquitin-protein ligase required to prevent centriole reduplication (PubMed:15885686, PubMed:23769972). Probably acts by ubiquitinating positive regulators of centriole reduplication (PubMed:23769972). Mediates monoubiquitination of 'Lys-119' of histone H2A (H2AK119Ub), a specific tag for epigenetic transcriptional repression: associates with some Polycomb group (PcG) multiprotein PRC2-like complex and mediates repression of target genes (PubMed:25470042). Also acts as a positive regulator of peroxisome import by mediating monoubiquitination of PEX5 at 'Lys-472': monoubiquitination promotes PEX5 stabilitation by preventing its polyubiquitination and degradation by the proteasome (PubMed:28724525). Has anti-HIV activity (PubMed:24317724).
Cellular Location	Chromosome. Cytoplasm, perinuclear region. Peroxisome membrane; Peripheral membrane protein. Note=Found in vesicles of the peroxisome. Aggregates as aggresomes, a perinuclear region where certain misfolded or aggregated proteins are sequestered for proteasomal degradation.
Tissue Location	Ubiquitous (PubMed:10888877). Highly expressed in testis, while it is weakly expressed in other tissues (PubMed:16310976).