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

ZNFX1 Recombinant Rabbit mAb

Catalog # AP98704

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9P2E3
Other Accession	Q9P2E3
Reactivity	Human
Host	Rabbit
Clonality	Recombinant
Calculated MW	220227
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 6 NF-X1-type zinc fingers.
Background Descriptions	ZNFX1 is a 1918 amino acid nuclear protein that is widely expressed and contains six NF-X1-type zinc fingers, which are presumed to function as zinc binding domains. The gene encoding ZNFX1 maps to human chromosome 20, which contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. There are two isoforms of ZNFX1 that are produced as a result of alternative splicing events.

Additional Information

Gene ID	57169
Other Names	IMD91; ZNFX1_HUMAN; ZNFX1; KIAA1404; zinc finger NFX1-type containing 1; zinc finger, NFX1-type containing 1
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,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	ZNFX1 {ECO:0000303|PubMed:33872655, ECO:0000312|HGNC:HGNC:29271}
Function	RNA-activated non-canonical E3 ubiquitin ligase required for cell survival during interferon (IFN) responses. Functions as an ATP- dependent 5'-> 3' RNA

translocase that selectively recognizes long single-stranded RNA (ssRNA) molecules (>100 nt) from viral or host origin during immune activation. Upon ssRNA binding, oligomerizes to assemble a split E3 active site in trans, involving the Z-RING domain that binds and activates E2-ubiquitin conjugates, such as UBE2D2, and the RZ catalytic domain that mediates ubiquitin transfer. Catalyzes hydroxyl ubiquitination of the 2'-OH of ssRNA ribose and auto-ubiquitination, generating mainly 'Lys-48'- and 'Lys-6'-linked polyubiquitin chains (PubMed:40876457). Forms ubiquitin-coated RNA condensates and stress granules, thereby regulating RNA metabolism, limiting excessive immune signaling, and preventing IFN-induced cell death (PubMed:33872655, PubMed:40876457). Also required for immunity against some bacteria, such as mycobacteria (PubMed:33876776). Inhibits NLRP3 inflammasome activation by sequestering NLRP3 in the cytoplasm and preventing its translocation to trans-Golgi network vesicles during the resting state. Upon inflammasome activation, is cleaved by CASP1, establishing a feed-forward loop that amplifies NLRP3 inflammasome activity (PubMed:39333773).

Cellular Location

Mitochondrion outer membrane {ECO:0000250|UniProtKB:Q8R151}. Cytoplasm, Stress granule. Cytoplasm, cytosol

Tissue Location

Widely expressed.

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