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JMY Rabbit pAb

Catalog # AP99770

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q8N9B5
Other Accession	Q8N9B5
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111445
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human JMY
Epitope Specificity	401-500/988
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 JMY family. Contains 1 WH2 domain.
SUBUNIT	Interacts with p300/EP300, the complex being recruited to activated p53/TP53. Interacts with TTC5 (By similarity).
Post-translational modifications	Ubiquitinated by MDM2, leading to its subsequent degradation by the proteasome. In case of DNA damage, the interaction with MDM2 is altered, preventing degradation and allowing interaction with p300/EP300 and its function in p53/TP53 stress response (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Acts both as a nuclear p53/TP53-cofactor and a cytoplasmic regulator of actin dynamics depending on conditions. In nucleus, acts as a cofactor that increases p53/TP53 response via its interaction with p300/EP300. Increases p53/TP53-dependent transcription and apoptosis, suggesting an important role in p53/TP53 stress response such as DNA damage. In cytoplasm, acts as a nucleation-promoting factor for both branched and unbranched actin filaments. Activates the Arp2/3 complex to induce branched actin filament networks. Also catalyzes actin polymerization in the absence of Arp2/3, creating unbranched filaments. Contributes to cell motility by controlling actin dynamics. May promote the rapid formation of a branched actin network by first nucleating new mother filaments and then activating Arp2/3 to branch off these filaments. The p53/TP53-cofactor and actin activator activities are regulated via its subcellular location.

Additional Information

Gene ID	133746
Other Names	WHAMM2; WHDC1L3; JMY_HUMAN; JMY; JMY_MOUSE; junction mediating and regulatory protein, p53 cofactor

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	JMY
Function	Acts both as a nuclear p53/TP53-cofactor and a cytoplasmic regulator of actin dynamics depending on conditions (PubMed:30420355). In nucleus, acts as a cofactor that increases p53/TP53 response via its interaction with p300/EP300. Increases p53/TP53-dependent transcription and apoptosis, suggesting an important role in p53/TP53 stress response such as DNA damage. In cytoplasm, acts as a nucleation-promoting factor for both branched and unbranched actin filaments (PubMed:30420355). Activates the Arp2/3 complex to induce branched actin filament networks. Also catalyzes actin polymerization in the absence of Arp2/3, creating unbranched filaments (PubMed:30420355). Contributes to cell motility by controlling actin dynamics. May promote the rapid formation of a branched actin network by first nucleating new mother filaments and then activating Arp2/3 to branch off these filaments. Upon nutrient stress, directly recruited by MAP1LC3B to the phagophore membrane surfaces to promote actin assembly during autophagy (PubMed:30420355). The p53/TP53-cofactor and actin activator activities are regulated via its subcellular location (By similarity).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q9QXM1}. Cytoplasmic vesicle. Cytoplasm, cytoskeleton. Endomembrane system; Lipid-anchor Cytoplasmic vesicle, autophagosome membrane. Note=Localizes to the nucleus in most cell types. Accumulates in nucleus under DNA damage conditions, increasing p53/TP53 transcription response and reducing its influence on cell motility (By similarity). In primary neutrophils, it colocalizes with actin filaments at the leading edge and is excluded from the nucleus. Localization correlates with motility, because it moves from the nucleus to the cytoplasmic compartment when cells are differentiated from nonmotile cells into highly motile neutrophil-like cells. Localizes to cytoplasmic vesicles which associate with actin filament and autophagosomal membranes upon starvation-induced autophagy (PubMed:30420355). {ECO:0000250, ECO:0000269|PubMed:30420355}

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