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RASSF1A Rabbit pAb

Catalog # AP99037

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NS23
Other Accession	Q9NS23
Reactivity	Rat, Human, Mouse
Predicted	Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39219
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RASSF1A
Epitope Specificity	145-260/340
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 1 phorbol-ester/DAG-type zinc finger. Contains 1 Ras-associating domain. Contains 1 SARAH domain.
SUBUNIT	Interacts with MAP1S and XPA. Binds to the N-terminal of CDC20 during prometaphase. Binds to STK3/MST2 and STK4/MST1. Isoform A interacts with MOAP1 and E4F1. Recruited to the TNFRSF1A and TNFRSF10A complexes in response to their respective cognate ligand, after internalization. Can self-associate. Isoform A interacts with RSSF5 and probably associates with HRAS1 via a RSSF1 isoform A-RSSF5 heterodimer. Part of a complex with MDM2, DAXX, RASSF1 and USP7. Isoform A interacts (via C-terminus) with DAXX (via N-terminus); the interaction is independent of MDM2 and TP53. Isoform C or isoform H interacts (via N-terminus) with DAXX. Isoform A interacts (via N-terminus) with MDM2 (via C-terminus); the interaction is independent of TP53.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The tumor suppressor gene RASSF1A (3p21.3), human Ras association domain family 1A, is expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis, small intestine, colon, and peripheral blood leukocytes. RASSF1A expression is inhibited by hypermethylation of the CpG island including the promoter and early transcribed regions of the human RASSF1A gene. Hypermethylated RASSF1A promoter is observed in primary tumors. Furthermore, RASSF1A is related with cell cycle regulation, apoptosis and microtubule stability. Potential tumor suppressor. Isoform A interacts with CDC20, an activator of the anaphase-promoting complex, APC, resulting in the inhibition of APC activity and mitotic progression. More specifically, RASSF1a inhibits proliferation by negatively regulating cell cycle progression at the level of G1/S-phase transition by regulating accumulation of cyclin D1 protein. It also inhibits the activation of STK3 and STK4 and may play an additional role as a scaffold protein, directing these enzymes to sites of activation. Isoform C has been shown not to perform these roles, and no function has been identified for this

isoform.

Additional Information

Gene ID	11186
Other Names	123F2; NORE2A; RASSF1A; RDA32; REH3P21; Rassf1B; Rassf1C; RASF1_HUMAN; RASSF1; RASF1_MOUSE; Protein 123F2; Ras association domain family member 1; Ras association (RalGDS/AF-6) domain family member 1
Dilution	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	RASSF1 {ECO:0000312|EMBL:AAF35128.2}
Function	Potential tumor suppressor. Required for death receptor- dependent apoptosis. Mediates activation of STK3/MST2 and STK4/MST1 during Fas-induced apoptosis by preventing their dephosphorylation. When associated with MOAP1, promotes BAX conformational change and translocation to mitochondrial membranes in response to TNF and TNFSF10 stimulation. Isoform A interacts with CDC20, an activator of the anaphase-promoting complex, APC, resulting in the inhibition of APC activity and mitotic progression. Inhibits proliferation by negatively regulating cell cycle progression at the level of G1/S-phase transition by regulating accumulation of cyclin D1 protein. Isoform C has been shown not to perform these roles, no function has been identified for this isoform. Isoform A disrupts interactions among MDM2, DAXX and USP7, thus contributing to the efficient activation of TP53 by promoting MDM2 self-ubiquitination in cell-cycle checkpoint control in response to DNA damage.
Cellular Location	[Isoform A]: Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, spindle pole. Nucleus Note=Localizes to cytoplasmic microtubules during interphase, to bipolar centrosomes associated with microtubules during prophase, to spindle fibers and spindle poles at metaphase and anaphase, to the midzone during early telophase, and to the midbody in late telophase in cells. Colocalizes with MDM2 in the nucleus
Tissue Location	Isoform A and isoform C are ubiquitously expressed in all tissues tested, however isoform A is absent in many corresponding cancer cell lines. Isoform B is mainly expressed in hematopoietic cells.

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