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Nucleolar protein 3 Rabbit pAb

Catalog # AP97858

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9D1X0
Other Accession	Q9D1X0
Reactivity	Mouse
Predicted	Rat, Human, Rabbit, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24568
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse Nucleolar protein 3/Apoptosis repressor with CARD
Epitope Specificity	1-100/220
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 CARD domain.
SUBUNIT	Interacts with SFRS9/SRp30c, NPM1, CASP2, CASP8 and TFPT (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	Apoptosis is regulated by death domain (DD) and/or caspase recruitment domain (CARD)bcontaining molecules and a caspase family of proteases. CARD containing cell death regulators include RAIDD, RICK, BCL10, Apaf 1, caspase 9 and caspase 2. Apoptosis repressor with CARD is a CARD domain containing protein that interacts with caspase 2 and 8 to inhibit enzymatic activity of caspase 8. Apoptosis repressor with CARD suppresses apoptosis induced by cell death adapters FADD and TRADD and by cell death receptors Fas, TNFR 1, and DR3. The mRNA of Apoptosis repressor with CARD is primarily expressed in skeletal muscle and cardiac tissue. The nuclear isoform (1/Nop30) may be involved in RNA splicing and the cytoplasmic isoform (2/Myp) may inhibit apoptosis.

Additional Information

Gene ID	78688
Other Names	ARC; FCM; MYOCL1; MYP; NOP; NOP30; B430311C09Rik; MYC; NOL3_HUMAN; NOL3; Apoptosis repressor with CARD; Muscle-enriched cytoplasmic protein (Myp); Nucleolar protein of 30 kDa (Nop30); NOL3_MOUSE; NOL3_RAT; nucleolar protein 3; nucleolar protein 3 (apoptosis repressor with CARD domain)
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	Nol3
Synonyms	Arc
Function	Apoptosis repressor that blocks multiple modes of cell death. Inhibits extrinsic apoptotic pathways through two different ways. Firstly by interacting with FAS and FADD upon FAS activation blocking death-inducing signaling complex (DISC) assembly (By similarity). Secondly by interacting with CASP8 in a mitochondria localization- and phosphorylation-dependent manner, limiting the amount of soluble CASP8 available for DISC-mediated activation (By similarity). Inhibits intrinsic apoptotic pathway in response to a wide range of stresses, through its interaction with BAX resulting in BAX inactivation, preventing mitochondrial dysfunction and release of pro-apoptotic factors (PubMed:16505176, PubMed:24312627). Inhibits calcium-mediated cell death by functioning as a cytosolic calcium buffer, dissociating its interaction with CASP8 and maintaining calcium homeostasis (By similarity). Negatively regulates oxidative stress-induced apoptosis by phosphorylation-dependent suppression of the mitochondria-mediated intrinsic pathway, by blocking CASP2 activation and BAX translocation (By similarity). Negatively regulates hypoxia-induced apoptosis in part by inhibiting the release of cytochrome c from mitochondria in a caspase-independent manner (By similarity). Also inhibits TNF-induced necrosis by preventing TNF-signaling pathway through TNFRSF1A interaction abrogating the recruitment of RIPK1 to complex I (PubMed:24440909). Finally through its role as apoptosis repressor, promotes vascular remodeling through inhibition of apoptosis and stimulation of proliferation, in response to hypoxia (PubMed:22082675). Inhibits too myoblast differentiation through caspase inhibition (By similarity).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:O60936, ECO:0000250|UniProtKB:Q62881}. Mitochondrion {ECO:0000250|UniProtKB:Q62881}. Sarcoplasmic reticulum {ECO:0000250|UniProtKB:Q62881}. Membrane {ECO:0000250|UniProtKB:O60936}; Lipid-anchor {ECO:0000250|UniProtKB:O60936}. Note=Phosphorylation at Thr-149 results in translocation to mitochondria. Colocalized with mitochondria in response to oxidative stress. {ECO:0000250|UniProtKB:Q62881}

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