

Recombinant Mouse Nol3 Protein, Myc/DDK-tagged

Cat. No. Nol3-4453M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length nucleolar protein 3 (apoptosis repressor with CARD domain) (Nol3), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. Secondly by interacting with CASP8 in a mitochondria localization- and phosphorylation-dependent manner, limiting the amount of soluble CASP8 available for DISC-mediated activation. 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. Inhibits calcium-mediated cell death by functioning as a cytosolic calcium buffer, dissociating its interaction with CASP8 and maintaining calcium homeostasis. Negatively regulates oxidative stress-induced apoptosis by phosphorylation-dependent suppression of the mitochondria-mediated intrinsic pathway, by blocking CASP2 activation and BAX translocation. Negatively regulates hypoxia-induced apoptosis in part by inhibiting the release of cytochrome c from mitochondria in a caspase-independent manner. Also inhibits TNF-induced necrosis by preventing TNF-signaling pathway through TNFRSF1A interaction abrogating the recruitment of RIPK1 to complex I. Finally

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through its role as apoptosis repressor, promotes vascular remodeling through inhibition of apoptosis and stimulation of proliferation, in response to hypoxia. Inhibits too myoblast differentiation through caspase inhibition.

Molecular Mass	24.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Nol3 nucleolar protein 3 (apoptosis repressor with CARD domain) [Mus musculus (house mouse)]
Official Symbol	Nol3
Synonyms	NOL3; nucleolar protein 3 (apoptosis repressor with CARD domain); nucleolar protein 3; ARC; MYC; NOP; Nop30; B430311C09Rik
Gene ID	78688
mRNA Refseq	NM_030152

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Protein Refseq	NP_084428
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UniProt ID	Q9D1X0
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