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Rabbit Anti-NMRAL1 antibody

SL19298R

Product Name:	NMRAL1
Chinese Name:	NMRAL1蛋白抗体
Alias:	FLJ25918; HSCARG; NmrA like family domain containing 1; NmrA like family domain containing protein 1; NmrA-like family domain-containing protein 1; NMRAL1; NMRL1_HUMAN; SDR48A1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	33kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human NMRAL1:201-299/299
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	HSCARG is a 299 amino acid redox sensor protein that belongs to the NmrA-type oxidoreductase family. Localizing primarily to the cytoplasm and perinuclear region, HSCARG localization to the nucleus may occur with increased intracellular nitric oxide and reduced NADPH/NADP+ ratios. Existing as a homodimer, HSCARG interacts with ASS1, inhibiting ASS1 activity in the presence of low NADPH/NADP+ ratios.

HSCARG gets induced by nitric oxide, cGMP and proinflammatory cytokines. The gene encoding HSCARG maps to human chromosome 16p13.3 and mouse chromosome 16 A1. Overexpression of the gene encoding HSCARG results in increased cell viability.

Function:
Redox sensor protein. Undergoes restructuring and subcellular redistribution in response to changes in intracellular NADPH/NADP(+) levels. At low NADPH concentrations the protein is found mainly as a monomer, and binds argininosuccinate synthase (ASS1), the enzyme involved in nitric oxide synthesis. Association with ASS1 impairs its activity and reduces the production of nitric oxide, which subsecuently prevents apoptosis. Under normal NADPH concentrations, the protein is found as a dimer and hides the binding site for ASS1. The homodimer binds one molecule of NADPH. Has higher affinity for NADPH than for NADP(+). Binding to NADPH is necessary to form a stable dimer.

Subcellular Location:
Cytoplasm. Cytoplasm > perinuclear region. Nucleus. Under normal redox growth conditions localizes in the cytoplasm and perinuclear region. Nuclear localization is promoted by increased intracellular nitric oxide and reduced NADPH/NADP(+) ratios.

Similarity:
Belongs to the NmrA-type oxidoreductase family.

SWISS:
Q9HBL8

Gene ID:
57407

Database links:

Entrez Gene: 57407 Human

Entrez Gene: 67824 Mouse

Entrez Gene: 287063 Rat

SwissProt: Q9HBL8 Human

SwissProt: Q8K2T1 Mouse

SwissProt: P86172 Rat

Unigene: 288969 Human

Unigene: 372705 Mouse

	Unigene: 138656 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.