

NRAS Recombinant monoclonal antibody

Catalog Number: 83815-2-RR

Basic Information

Catalog Number: 83815-2-RR	GenBank Accession Number: BC005219	Purification Method: Protein A purification
Source: Rabbit	GeneID (NCBI): 4893	CloneNo.: 242810G11
Isotype: IgG	UNIPROT ID: P01111	Recommended Dilutions: WB: 1:5000-1:50000 IHC: 1:500-1:2000
Immunogen Catalog Number: AG1081	Full Name: neuroblastoma RAS viral (v-ras) oncogene homolog	
	Calculated MW: 21 kDa	
	Observed MW: 21 kDa	

Applications

Tested Applications:

WB, IHC, ELISA

Species Specificity:

human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, A549 cells, HEK-293 cells, MCF-7 cells, Jurkat cells, NIH/3T3 cells, C6 cells

IHC : mouse testis tissue, mouse pancreas tissue

Background Information

NRAS, also named as N-ras and NRAS1, is neuroblastoma RAS viral (v-ras) oncogene homolog from the mammalian ras gene family and it is a member of the small GTPase superfamily. RAS proteins are involved in signal transduction pathways, and bind GDP/GTP and possess intrinsic GTPase activity. It is mapped on chromosome 1, and it is activated in HL60, a promyelocytic leukemia line. Defects in NRAS are a cause of juvenile myelomonocytic leukemia (JMML). NRAS is one member of RAS gene family of oncoproteins, which is commonly mutated in melanoma and hematopoietic cancers via mapped on chromosome 1 (PMID: 2327491, PMID: 26990546). NRAS mediates activation of both mitogen-activated protein kinase (MAPK) and PI3K/AKT/MYC signaling (PMID: 17297468). NRAS induced classical MAPK signaling leads to cyclin D1 expression and cell cycle dysregulation and promotion of prosurvival pathways (PMID: 7970723, PMID: 18246127). In addition, NRAS effectively prevents Glycogen Synthase Kinase3 (GSK3)-mediated phosphorylation of MYC via PI3K/AKT, which results in enhanced activity of endogenous MYC protein (PMID: 17297468). Mutational NRAS causes Ras-GTP to be in a state of continuous activation, which results in malignant proliferation and metastasis (PMID: 24985059).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

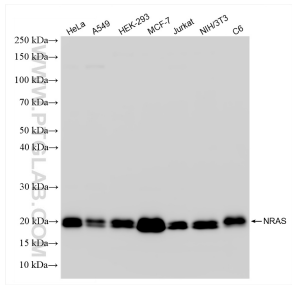
For technical support and original validation data for this product please contact:

T: 4006900926

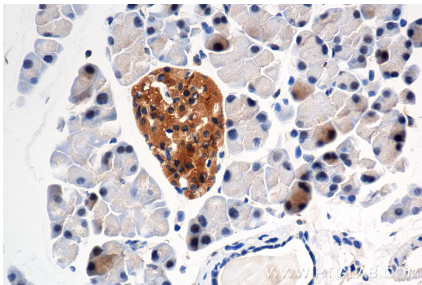
E: Proteintech-CN@ptglab.comW: ptgcn.com

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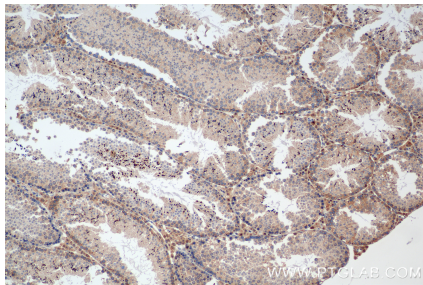
Selected Validation Data



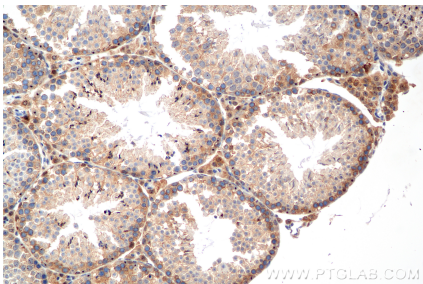
Various lysates were subjected to SDS PAGE followed by western blot with 83815-2-RR (NRAS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



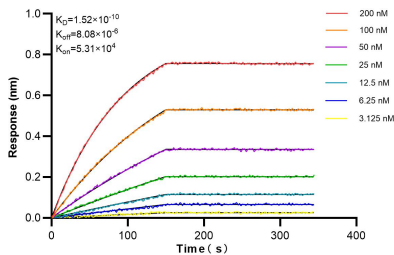
Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue slide using 83815-2-RR (NRAS antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 83815-2-RR (NRAS antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 83815-2-RR (NRAS antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 83815-2-RR against Human NRAS were performed. The affinity constant is 0.152 nM.