

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
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 4893	CloneNo.: 242810G11
Source: Rabbit	UNIPROT ID: P01111	Recommended Dilutions: WB: 1:5000-1:50000 IHC: 1:500-1:2000
Isotype: IgG	Full Name: neuroblastoma RAS viral (v-ras) oncogene homolog	
Immunogen Catalog Number: AG1081	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

*** 20ul sizes contain 0.1% BSA

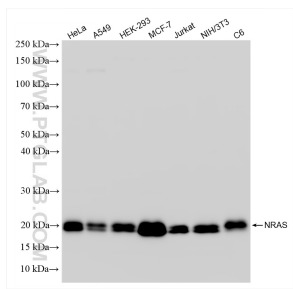
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

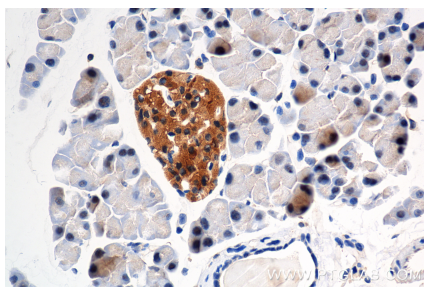
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

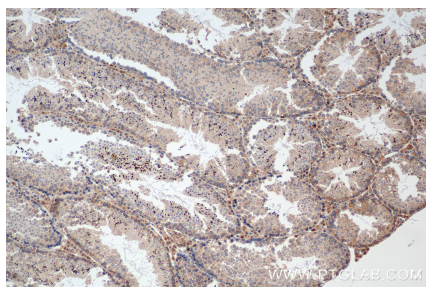
Selected Validation Data



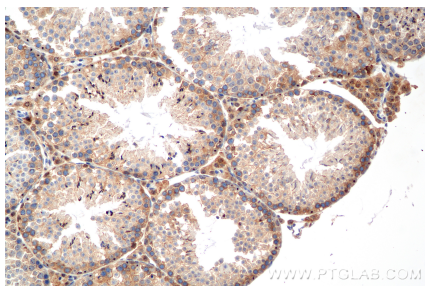
Various lysates were subjected to SDS PAGE followed by western blot with 83815-2-RR (NRAS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



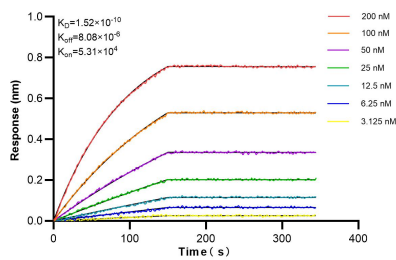
Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue slide using 83815-2-RR (NRAS antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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.