For Research Use Only

NRAS Recombinant monoclonal antibody, PBS Only

Catalog Number:83815-2-PBS

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Basic Information

Catalog Number:
83815-2-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1081

GenBank Accession Number:
BC005219

GeneID (NCBI):
4893

UNIPROT ID:
P01111

Full Name:
neuroblastoma RAS viral (v-ras) oncogene homolog

Calculated MW:
21 kDa

Observed MW:
21 kDa

Purification Method:
Protein A purification

CloneNo.:
242810G11

Applications

Tested Applications:
WB, IHC, Indirect ELISA

Species Specificity:
human, mouse, rat

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 -80°C.
Storage Buffer:
PBS only, pH7.3

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
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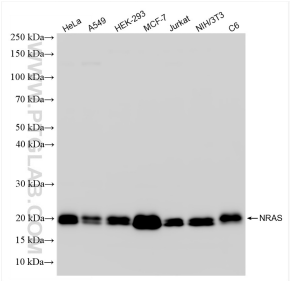
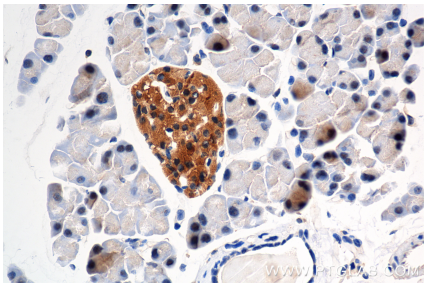
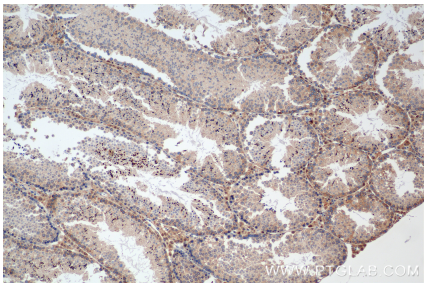
Selected Validation Data



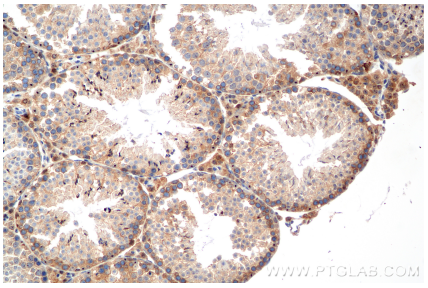
Various lysates were subjected to SDS PAGE followed by western blot with 83815-2-RR (NRAS antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83815-2-PBS in a different storage buffer formulation.



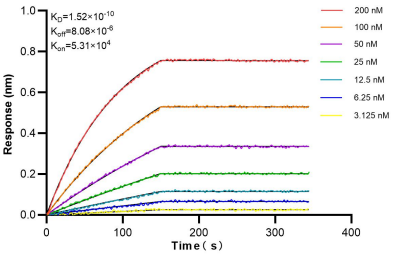
Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue slide using 83815-2-RR (NRAS antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83815-2-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 83815-2-PBS in a different storage buffer formulation.



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). This data was developed using the same antibody clone with 83815-2-PBS in a different storage buffer formulation.



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