

For Research Use Only

# Neurogranin Recombinant antibody

Catalog Number: 83593-5-RR



## Basic Information

<b>Catalog Number:</b> 83593-5-RR	<b>GenBank Accession Number:</b> BC002835	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1000 ug/ml	<b>GeneID (NCBI):</b> 4900	<b>CloneNo.:</b> 240526B9
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q92686	<b>Recommended Dilutions:</b> WB 1:2000-1:10000 IHC 1:250-1:1000
<b>Isotype:</b> IgG	<b>Full Name:</b> neurogranin (protein kinase C substrate, RC3)	
<b>Immunogen Catalog Number:</b> AG0676	<b>Calculated MW:</b> 7.6 kDa	
	<b>Observed MW:</b> 15-17 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, FC (Intra), ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> human, mouse, rat	<b>WB :</b> mouse brain tissue, rat brain tissue
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> mouse brain tissue,

## Background Information

Neurogranin (formerly designated p17, also known as Ng, RC3 and BICKS) belongs to the neurogranin family. It is a neuron-specific substrate for protein kinase C (PKC). It is a postsynaptic protein that is highly enriched in brain, with restricted expression in the cortex, striatum, hippocampus, thalamus, hypothalamus and olfactory bulb nuclei. Neurogranin binds calmodulin at low levels of calcium, thereby regulating calmodulin-dependent nitric oxide synthase. Neurogranin acts as a "third messenger" substrate of protein kinase C-mediated molecular cascades during synaptic development and remodeling. It binds to calmodulin in the absence of calcium.

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

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

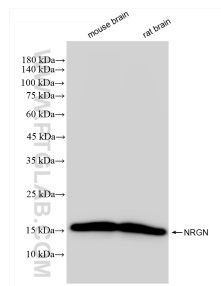
T: 4006900926

E: Proteintech-CN@ptglab.com

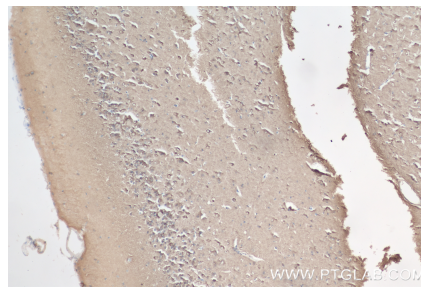
W: ptgcn.com

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

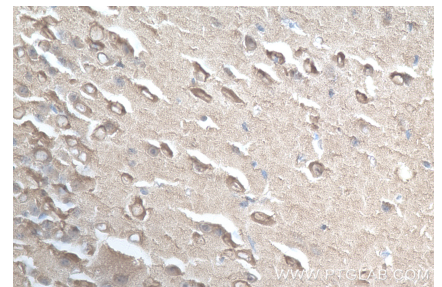
## Selected Validation Data



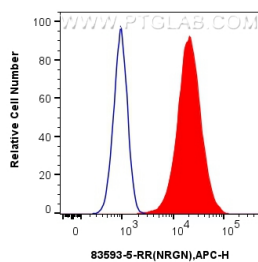
Various lysates were subjected to SDS PAGE followed by western blot with 83593-5-RR (Neurogranin antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



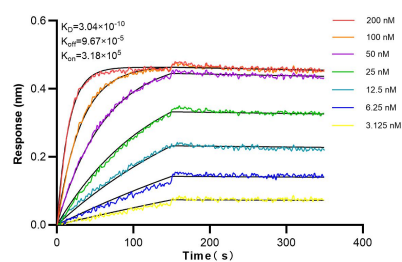
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 83593-5-RR (Neurogranin antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 83593-5-RR (Neurogranin antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  A549 cells were intracellularly stained with 0.25  $\mu$ g Neurogranin Recombinant antibody (83593-5-RR, Clone:240526B9) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (red), or 0.25  $\mu$ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83593-5-RR against Human NRGN were performed. The affinity constant is 0.304 nM.