

For Research Use Only

RRN3 Recombinant monoclonal antibody, PBS Only (Detector)

Catalog Number: 87046-1-PBS



Basic Information

Catalog Number: 87046-1-PBS	GenBank Accession Number: BC132688	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 54700	CloneNo.: 252129D11
Source: Rabbit	UNIPROT ID: Q9NYV6	
Isotype: IgG	Full Name: RRN3 RNA polymerase I transcription factor homolog (S. cerevisiae)	
Immunogen Catalog Number: AG23207	Observed MW: 75 kDa	

Applications

Tested Applications:
WB, Sandwich ELISA, Indirect ELISA

Species Specificity:
human, mouse

Product Information

87046-1-PBS targets RRN3 as part of a matched antibody pair:

MP02997-1: 87046-2-PBS capture and 87046-1-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

RRN3, also known as transcription initiation factor IA, is a key regulatory protein essential for RNA polymerase I-mediated ribosomal DNA transcription. It functions as a bridge molecule that precisely regulates the recruitment of RNA polymerase I to the rDNA promoter and the assembly of the transcription initiation complex by integrating intra- and extracellular signals (such as growth factors, nutrient status, and cellular stress). The activity of RRN3 is tightly controlled by multiple signaling pathways. Specifically, the mTOR and MAPK pathways can activate RRN3 through phosphorylation, thereby promoting ribosomal RNA synthesis and ultimately influencing cell growth and proliferation. Studies have shown that RRN3 is abnormally highly expressed in various cancer cells and is closely associated with malignant tumor progression, making it a potential therapeutic target for anticancer strategies.

Storage

Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

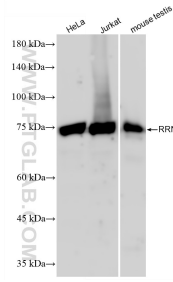
For technical support and original validation data for this product please contact:

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

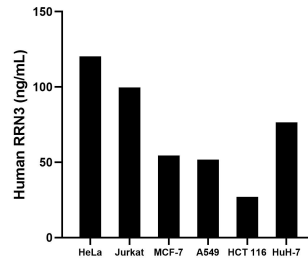
E: proteintech@ptglab.com
W: ptglab.com

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

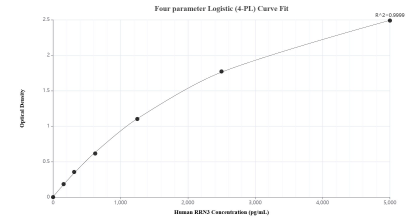
Selected Validation Data



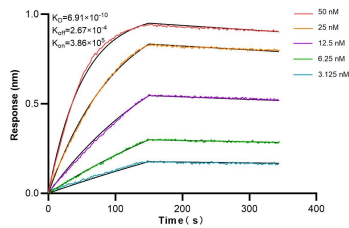
Various lysates were subjected to SDS PAGE followed by western blot with 87046-1-RR (RRN3 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87046-1-PBS in a different storage buffer formulation.



The mean RRN3 concentration was determined to be 120.4 ng/mL in HeLa cell extract based on a 1.2 mg/mL extract load, 99.7 ng/mL in Jurkat cell extract based on a 1.2 mg/mL extract load, 54.5 ng/mL in MCF-7 cell extract based on a 1.2 mg/mL extract load, 51.8 ng/mL in A549 cell extract based on a 1.2 mg/mL extract load, 27.1 ng/mL in HCT 116 extract based on a 1.2 mg/mL extract load and 76.5 ng/mL in HuH-7 cell extract based on a 1.2 mg/mL extract load.



Sandwich ELISA standard curve of MP02997-1, Human RRN3 Recombinant Matched Antibody Pair - PBS only. 87046-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag23207. 87046-1-PBS was HRP conjugated as the detection antibody. Range: 156-5000 pg/mL.



Bi-layer interferometry (BLI) kinetic assays of 87046-1-RR against Human RRN3 were performed. The affinity constant is 0.691 nM.