

For Research Use Only

cGAS Recombinant antibody

Catalog Number: 84045-1-RR



Basic Information

Catalog Number: 84045-1-RR	GenBank Accession Number: BC145651	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 214763	CloneNo.: 240964E2
Source: Rabbit	UNIPROT ID: Q8C6L5	Recommended Dilutions: WB 1:500-1:2000 IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate IF/ICC 1:125-1:500
Isotype: IgG	Full Name: RIKEN cDNA E330016A19 gene	
Immunogen Catalog Number: AG31677	Calculated MW: 58 kDa	
	Observed MW: 58 kDa	

Applications

Tested Applications: WB, IF/ICC, IP, ELISA	Positive Controls:
Species Specificity: mouse	WB : NIH/3T3 cells, RAW 264.7 cells, C2C12 cells IP : NIH/3T3 cells, IF/ICC : RAW 264.7 cells,

Background Information

cGAS (cyclic GMP-AMP synthase) is a cytosolic DNA sensor that serves to mount an immune response against the invasion of microbial pathogens such as viruses. cGAS normally resides as an inactive protein in the cell. Upon binding to DNA, cGAS undergoes a conformational change to an active state and produces the second messenger cyclic GMP-AMP (cGAMP) from ATP and GTP, which is subsequently detected by the cyclic-dinucleotide sensor STING, an ~40 kDa dimeric transmembrane protein at the endoplasmic reticulum (ER). cGAS not only is found in the cytosol but has a multifaceted cellular distribution that involves localization at the cell membrane and in the nucleus (PMID: 32424334). The calculated molecular weight of cGAS is 58 kDa. With post-translational modification, the MW of cGAS will be migrated to 70 kDa.

Storage

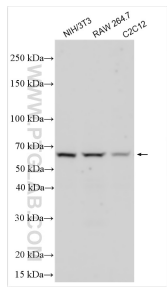
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

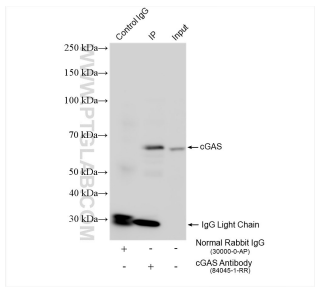
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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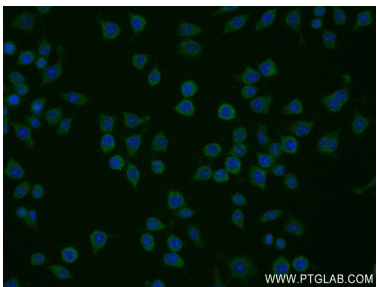
Selected Validation Data



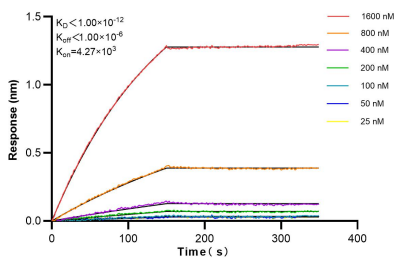
Various lysates were subjected to SDS PAGE followed by western blot with 84045-1-RR (cGAS antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



IP result of anti-cGAS (IP:84045-1-RR, 4ug; Detection:84045-1-RR 1:600) with NIH/3T3 cells lysate 1920 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed RAW 264.7 cells using cGAS antibody (84045-1-RR, Clone: 240964E2) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).



Biolayer interferometry (BLI) kinetic assays of 84045-1-RR against Mouse cGAS were performed. The affinity constant is below 1 pM.