

For Research Use Only

# cGAS Polyclonal antibody

Catalog Number: 29958-1-AP **12 Publications**



## Basic Information

<b>Catalog Number:</b> 29958-1-AP	<b>GenBank Accession Number:</b> BC145651	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 350 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 214763	<b>Recommended Dilutions:</b> WB 1:1000-1:6000 IHC 1:50-1:500 IF/ICC 1:50-1:500
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q8C6L5	
<b>Isotype:</b> IgG	<b>Full Name:</b> RIKEN cDNA E330016A19 gene	
<b>Immunogen Catalog Number:</b> AG31677	<b>Calculated MW:</b> 58 kDa	
	<b>Observed MW:</b> 58 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, ELISA	<b>Positive Controls:</b> WB : HT-29 cells, RAW 264.7 cells, Sp2/0 cells IHC : human placenta tissue, human lung tissue, mouse lung tissue IF/ICC : THP-1 cells,
<b>Cited Applications:</b> WB, IF	
<b>Species Specificity:</b> human, mouse	
<b>Cited Species:</b> 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**

## 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.

## Notable Publications

Author	Pubmed ID	Journal	Application
Qiaohui Chen	39703158	Adv Sci (Weinh)	WB
Si-Yao Cheng	39672454	Food Chem Toxicol	WB
Jiamin Wang	39520553	Naunyn Schmiedebergs Arch Pharmacol	WB

## Storage

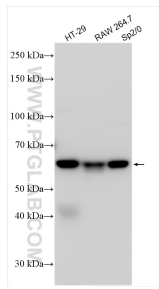
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

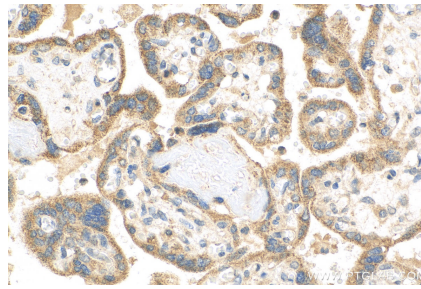
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

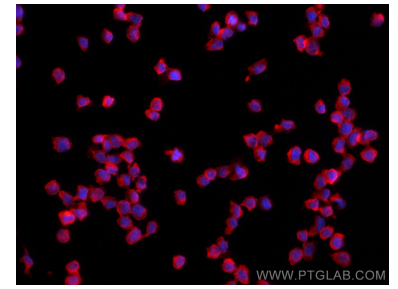
## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 29958-1-AP (cGAS antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 29958-1-AP (cGAS antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed THP-1 cells using cGAS antibody (29958-1-AP) at dilution of 1:200 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4).