

For Research Use Only

# cGAS Polyclonal antibody

Catalog Number: 29958-1-AP

Featured Product

23 Publications



## Basic Information

### Catalog Number:

29958-1-AP

### Size:

150ul, Concentration: 350 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG31677

### GenBank Accession Number:

BC145651

### GeneID (NCBI):

214763

### UNIPROT ID:

Q8C6L5

### Full Name:

RIKEN cDNA E330016A19 gene

### Calculated MW:

58 kDa

### Observed MW:

58 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:1000-1:6000

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF/ICC, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse

### Cited Species:

human, mouse, rat

### Positive Controls:

WB: HT-29 cells, RAW 264.7 cells, Sp2/O cells

IHC: human placenta tissue, human lung tissue, mouse lung tissue

IF/ICC: THP-1 cells,

**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
Lixin Gong	40197027	Antioxid Redox Signal	WB
Jianli Wang	40178669	Mol Cell Biochem	WB
Ge Gong	40075503	Respir Res	WB,IF

## 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

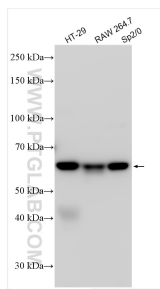
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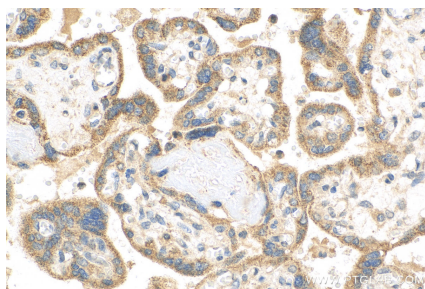
E: proteintech@ptglab.com  
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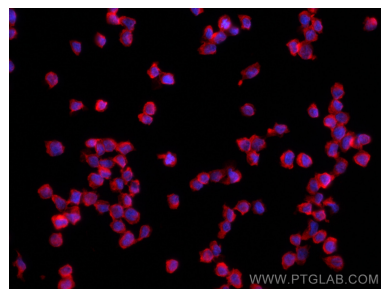
## Selected Validation Data



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).