

For Research Use Only

cGAS Polyclonal antibody

Catalog Number: 29958-1-AP

Featured Product

27 Publications



Basic Information

Catalog Number:

29958-1-AP

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: 1:500-1:3000

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

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: RAW 264.7 cells, Sp2/0 cells

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

IF/ICC: THP-1 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.

Notable Publications

Author	Pubmed ID	Journal	Application
Suli Chong	40541816	Cell Signal	WB
Yingnan Luo	40480558	Int J Biol Macromol	WB
Yi Shi	40462149	J Transl Med	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

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

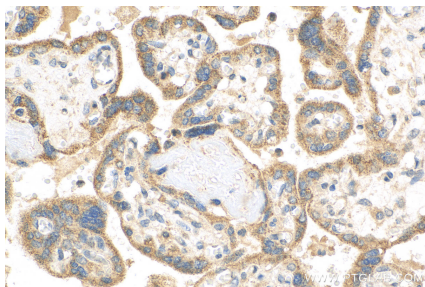
T: 4006900926

E: Proteintech-CN@ptglab.com

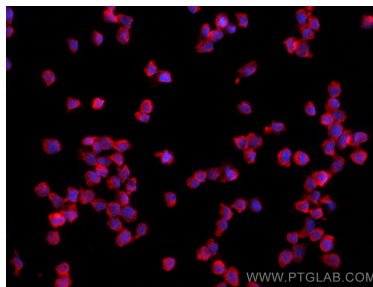
W: ptgcn.com

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

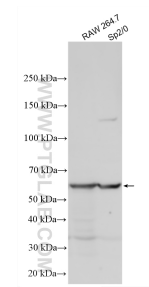
Selected Validation Data



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).



Various lysates were subjected to SDS PAGE followed by western blot with 29958-1-AP (cGAS antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.