## For Research Use Only

## cGAS Recombinant antibody, PBS Only

Catalog Number:82869-1-PBS Featured Product



**Purification Method:** 

Protein A purification

CloneNo.:

1H1

**Basic Information** 

Catalog Number: 82869-1-PBS

Concentration: GeneID (NCBI):

1mg/ml 115004

Source: UNIPROT ID:

Rabbit Q8N884

Isotype: Full Name:

gG chromosome 6 open reading frame

Immunogen Catalog Number: 1

AG23455 Calculated MW:

496 aa, 54 kDa Observed MW: 62 kDa

BC113608

GenBank Accession Number:

**Applications** 

Tested Applications: WB, IF/ICC, Indirect ELISA Species Specificity:

## **Background Information**

cGAS (Cyclic GMP-AMP synthase), also known as C6orf150 or h-cGAS, is a 522 aa protein. cGAS mediates innate immune responses against invading pathogens, or against self-dsDNA, which causes autoimmune disorders. The cGAS sensor not only recognizes cytosolic dsDNA but also synthesizes the second messenger cGAMP from ATP and GTP, which then binds to and activates STING. STING undergoes conformational changes and translocation from the endoplasmic reticulum to the Golgi apparatus to encounter TBK1 and IRF3, eventually triggering the production of type I IFNs.

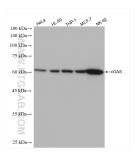
Storage

Storage: Store at -80°C.

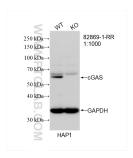
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C Storage Ruffer.

Storage Buffer: PBS Only

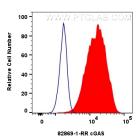
## Selected Validation Data



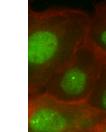
Various lysates were subjected to SDS PAGE followed by western blot with 82869-1-RR (cGAS antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82869-1-PBS in a different storage buffer formulation.



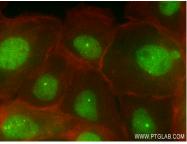
WB result of cGAS antibody (82869-1-RR; 1:1000; room temperature for 1.5 hours) with wild-type and cGAS knockout HAP1 cells. This data was developed using the same antibody clone with 82869-1-PBS in a different storage buffer formulation.



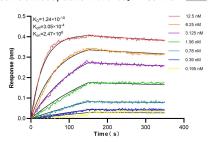
1x10^6 A431 cells were intracellularly stained with 0.25 ug cGAS Recombinant antibody (82869-1-RR, Clone:1H1) and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with were fixed and permeabilized with
Transcription Factor Staining Buffer Kit
(PF00011). This data was developed using the same antibody clone with 82869-1-PBS in a



Immunofluorescent analysis of (4% PFA) fixed A431 cells using cGAS antibody (82869-1-RR, Clone: 1H1) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 82869-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed A431 cells using cGAS antibody (82869-1-RR, Clone: 1H1) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 82869-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLL) kinetic assays of 82869-1-RR against Human cGAS were performed. The affinity constant is 0.124 nM.