

# Anti-cGAS Antibody [PSH06-78]

HA722736



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 59 kDa
<b>Clone number:</b>	PSH06-78

**Description:** Cyclic GMP-AMP synthase (cGAS, cGAMP synthase), belonging to the nucleotidyltransferase family, is a cytosolic DNA sensor that activates a type-I interferon response. It is part of the cGAS-STING DNA sensing pathway. It binds to microbial DNA as well as self DNA that invades the cytoplasm, and catalyzes cGAMP synthesis. cGAMP then functions as a second messenger that binds to and activates the endoplasmic reticulum protein STING to trigger type-I IFNs production. Mice lacking cGAS are more vulnerable to lethal infection by DNA viruses and RNA viruses. In addition, cGAS has been shown to be an innate immune sensor of retroviruses including HIV. The human gene encoding cGAS is MB21D1 on chromosome 6.

**Immunogen:** Recombinant protein within human cGAS aa 101-522.

**Positive control:** THP-1 cell lysate, HT-29 cell lysate, NK-92 cell lysate, Caco-2 cell lysate, HeLa cell lysate, A431 cell lysate, LoVo cell lysate, PANC-1 cell lysate.

**Subcellular location:** Nucleus, Chromosome, Cell membrane, Cytoplasm, cytosol.

**Database links:** SwissProt: Q8N884 Human

**Recommended Dilutions:**

**WB** 1:2,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

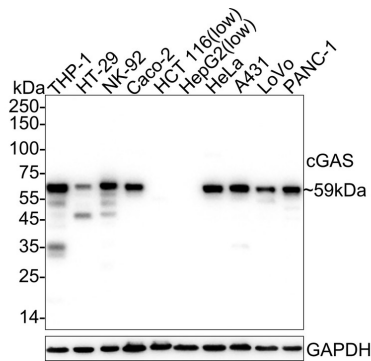
Technical:0086-571-89986345

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## Images

**Fig1:** Western blot analysis of cGAS on different lysates with Rabbit anti-cGAS antibody (HA722736) at 1/2,000 dilution.



Lane 1: THP-1 cell lysate  
 Lane 2: HT-29 cell lysate  
 Lane 3: NK-92 cell lysate  
 Lane 4: Caco-2 cell lysate  
 Lane 5: HCT 116 cell lysate (low expression)  
 Lane 6: HepG2 cell lysate (low expression)  
 Lane 7: HeLa cell lysate  
 Lane 8: A431 cell lysate  
 Lane 9: LoVo cell lysate  
 Lane 10: PANC-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 59 kDa

Observed band size: 59 kDa

Exposure time: 20 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA722736) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

- Zhang J et al. The role of cGAS-STING signaling in pulmonary fibrosis and its therapeutic potential. *Front Immunol.* 2023 Oct
- Wang C et al. Ultrasound-responsive low-dose doxorubicin liposomes trigger mitochondrial DNA release and activate cGAS-STING-mediated antitumour immunity. *Nat Commun.* 2023 Jun

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