Product datasheet

Anti-CGAS Antibody

Catalog Number: *A31676-1*

BOSTER
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd and 4th floors, Optics Valley Biomedical Accelerator,
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Basic Information

Product Name	Anti-CGAS Antibody
Gene Name	CGAS
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, ICC/IF, FCM, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E. coli-derived human CGAS recombinant protein (Position: L208-F522). Human CGAS shares 71.7% amino acid (aa) sequence identity with mouse CGAS.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	59 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

cGAS (cyclic GMP-AMP synthase), also known as MB21D1 (Mab-21 domain containing 1), h-cGAS or C6orf150, is a 522 amino acid cytoplasmic nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP. cGAS is suggested to have antiviral activity by acting as a key cytosolic DNA sensor. cGAS binds to cytosolic DNA, which leads to cGAMP synthesis and activation of TMEM173, thereby trigger type-I interferon production. Expressed in monocytic cell line THP1, cGAS exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 6q13.

Reference

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Anti-CGAS Antibody 被引用在3文献中。

Selected Validation Data

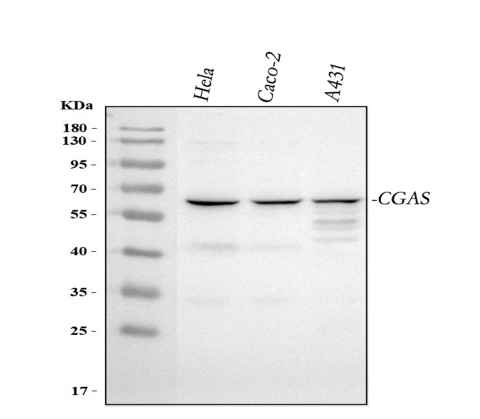

Figure 1. Western blot analysis of CGAS using anti-CGAS antibody (A31676-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human A431 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CGAS antigen affinity purified polyclonal antibody (A31676-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CGAS at approximately 59 kDa. The expected band size for CGAS is at 59 kDa.

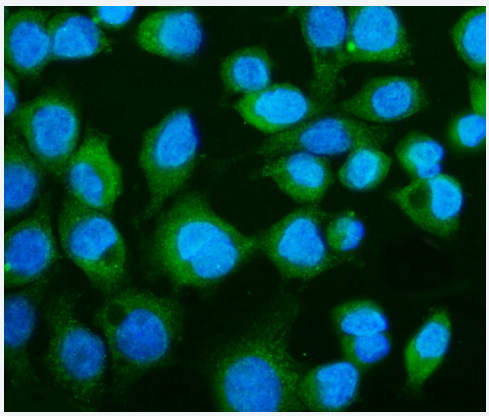

Figure 2. IF analysis of CGAS using anti-CGAS antibody (A31676-1).
CGAS was detected in an immunocytochemical section of Caco-2 cells. The section was incubated with rabbit anti-CGAS Antibody (A31676-1) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

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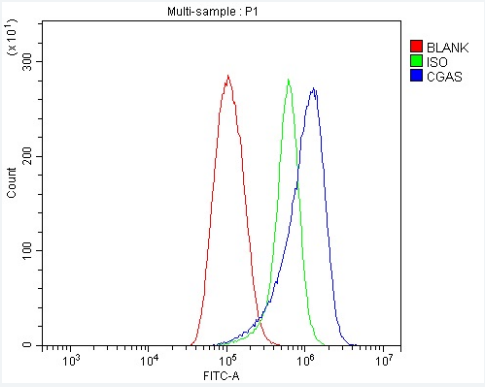

Figure 3. Flow Cytometry analysis of THP-1 cells using anti-CGAS antibody (A31676-1).
Overlay histogram showing THP-1 cells stained with A31676-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CGAS Antibody (A31676-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.