

Rabbit cGAS Antibody | anti-cGAS antibody

cGAS Rabbit pAb

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA28430	Rabbit	Human, Mouse, Rat	Immunohistochemistry, Immunofluorescence, Immunocytochemistry

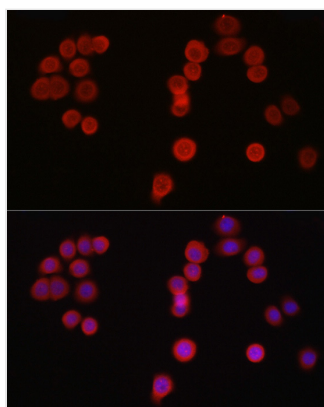
PRODUCT SYNONYMS

cGAS; cGAS Rabbit pAb; MB21D1; C6orf150; h-cGAS; cyclic GMP-AMP synthase; anti-cGAS antibody

PRODUCT SPECIFICATIONS

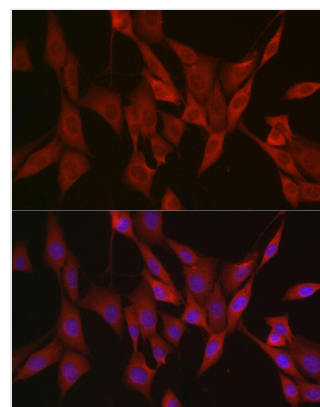
Host	Rabbit
Reactivity	Human, Mouse, Rat
Isotype	IgG1, kappa
Purity/Purification	Affinity purification
Form/Format	PBS with 0.05% proclin300, 50% glycerol, pH7.3.
Applicable Applications for anti-cGAS antibody	IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry)
Application Notes	IHC 1:50-1:200 IF/ICC: 1:50-1:200
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 400-500 of human cGAS (NP_612450.2).
Cellular Location	Cytoplasm, cytosol
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.

IMAGES



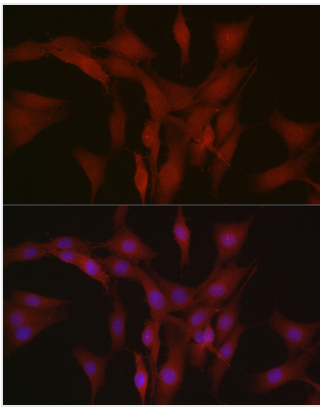
IF (Immunofluorescence)

Immunofluorescence analysis of HT-29 cells using cGAS antibody at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



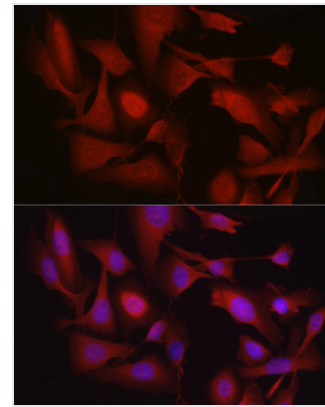
IF (Immunofluorescence)

Immunofluorescence analysis of NIH/3T3 cells using cGAS antibody at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



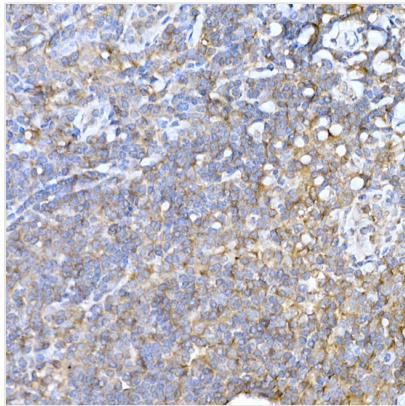
IF (Immunofluorescence)

Immunofluorescence analysis of PC-12 cells using cGAS antibody at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



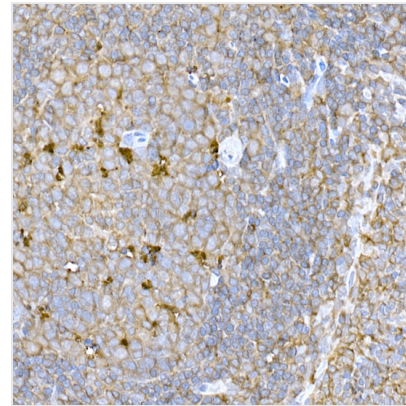
IF (Immunofluorescence)

Immunofluorescence analysis of U2OS cells using cGAS antibody at dilution of 1:50 (40x lens). Blue: DAPI for nuclear staining.



IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded Human tonsil using cGAS antibody at dilution of 1:50 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.



IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded Rat spleen using cGAS antibody at dilution of 1:50 (40x lens). Perform high pressure antigen retrieval with 10 mM citrate buffer pH 6.0 before commencing with IHC staining protocol.

ADDITIONAL INFORMATION

Related Product Information for anti-cGAS antibody

Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP and plays a key role in innate immunity (PubMed:23258413, PubMed:23707061, PubMed:23722159, PubMed:24077100, PubMed:25131990, PubMed:29976794, PubMed:30799039). Catalysis involves both the formation of a 2', 5' phosphodiester linkage at the GpA step and the formation of a 3', 5' phosphodiester linkage at the ApG step, producing c[G(2', 5')pA(3', 5')p] (PubMed:28363908, PubMed:28214358). Acts as a key cytosolic DNA sensor, the presence of double-stranded DNA (dsDNA) in the cytoplasm being a danger signal that triggers the immune responses (PubMed:28363908). Binds cytosolic DNA directly, leading to activation and synthesis of cGAMP, a second messenger that binds to and activates TMEM173/STING, thereby triggering type-I interferon production (PubMed:28363908, PubMed:28314590). Preferentially recognizes and binds curved long DNAs (PubMed:30007416). In contrast to other mammals, human CGAS displays species-specific mechanisms of DNA recognition and produces less cyclic GMP-AMP (cGAMP), allowing a more fine-tuned response to pathogens (PubMed:30007416). Has antiviral activity by sensing the presence of dsDNA from DNA viruses in the cytoplasm (PubMed:28363908). Also acts as an innate immune sensor of infection by retroviruses, such as HIV-1, by detecting the presence of reverse-transcribed DNA in the cytosol (PubMed:23929945). Detection of retroviral reverse-transcribed DNA in the cytosol may be indirect and be mediated via interaction with PQBP1, which directly binds reverse-transcribed retroviral DNA (PubMed:26046437). Also detects the presence of DNA from bacteria, such as M.tuberculosis (PubMed:26048138). cGAMP can be transferred from producing cells to neighboring cells through gap junctions, leading to promote TMEM173/STING activation and convey immune response to connecting cells (PubMed:24077100).

Product Categories/Family for anti-cGAS antibody

Cell Biology & Developmental Biology; Polyclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504299
NCBI GeneID	8290
NCBI Accession #	NP_003484.1
NCBI GenBank Nucleotide #	NM_003493.2
UniProt Accession #	Q16695; Q6FGU4; B2R5K3
Molecular Weight	136
NCBI Official Full Name	histone H3.1t
NCBI Official Synonym Full Names	histone cluster 3, H3
NCBI Official Symbol	HIST3H3
NCBI Official Synonym Symbols	H3t; H3.4; H3/g; H3FT
NCBI Protein Information	histone H3.1t; H3/t; histone 3, H3; H3 histone family, member T
UniProt Protein Name	Histone H3.1t
UniProt Gene Name	HIST3H3
UniProt Synonym Gene Names	H3FT; H3/t; H3t
UniProt Entry Name	H31T_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rabbit-human-mouse-rat-antibody/cgas/28430>