

## ARG40192 anti-cGAS antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes cGAS
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	cGAS
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 350-522 of Human MB21D1 (NP_612450.2).
Conjugation	Un-conjugated
Alternate Names	cGAMP synthase; Cyclic GMP-AMP synthase; Mab-21 domain-containing protein 1; C6orf150; EC 2.7.7.86; cGAS; h-cGAS

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:100
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Rat heart, Mouse heart and MCF7	

### Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

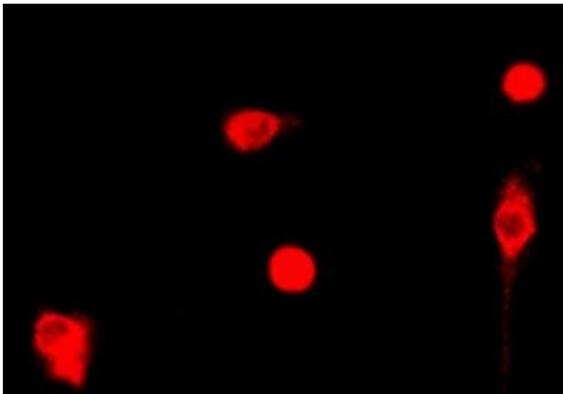
## Bioinformation

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Gene Symbol	MB21D1
Gene Full Name	Mab-21 domain containing 1
Function	Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP. 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]. Has antiviral activity by acting 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. 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. [UniProt]
Highlight	Related products: <a href="#">cGAS antibodies; Anti-Rabbit IgG secondary antibodies;</a> Related news: <a href="#">Exploring Antiviral Immune Response</a>
Calculated Mw	59 kDa
PTM	Polyglutamylated by TLL6 at Glu-286, leading to impair DNA-binding activity. Monoglutamylated at Glu-314 by TLL4, leading to impair the nucleotidyltransferase activity. Deglutamylated by AGBL5/CCP5 and AGBL6/CCP6.  Cleaved by CASP1 at Asp-140 and Asp-157 upon DNA virus infection; the cleavage impairs cGAMP production (PubMed:28314590). Also cleaved by the pyroptotic CASP4 and CASP5 during non-canonical inflammasome activation; they don't cut at the same sites than CASP1 (PubMed:28314590). [UniProt]
Cellular Localization	Cytoplasm, cytosol. Note=Upon transfection with dsDNA forms punctate structures that co-localize with DNA and Beclin-1 (BECN1) (PubMed:26048138). Note=(Microbial infection) Upon infection with virulent M.tuberculosis forms aggregates with dsDNA, non-virulent bacteria (without the ESX-1 locus) do not form these aggregates (PubMed:26048138). [UniProt]

## Images

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ARG40192 anti-cGAS antibody ICC/IF image

Immunofluorescence: NIH/3T3 cells stained with ARG40192 anti-cGAS antibody at 1:100 dilution.

ARG40192 anti-cGAS antibody WB image

Western blot: 25 µg of Rat heart, Mouse heart and MCF7 cell lysates stained with ARG40192 anti-cGAS antibody at 1:1000 dilution.

