

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, IHC-P, 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
	IHC-P	1:50 - 1:200
	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	
Observed Size	62 kDa	

Properties

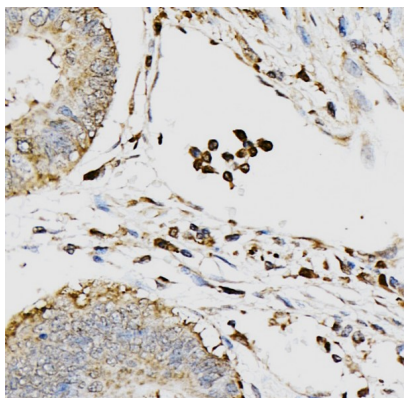
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. 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

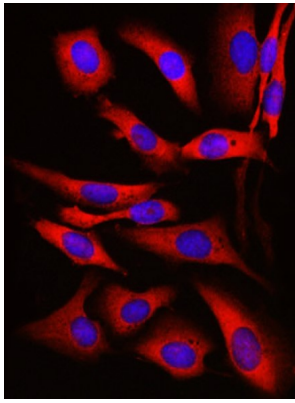
Gene Symbol	MB21D1
Gene Full Name	Mab-21 domain containing 1
Function	Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (cGAMP) from ATP and GTP. Catalysis involves both the formation of a 2',5' phosphodiester linkage at the GpA step and the formation of a 3',5' phosphodiester linkage 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: cGAS antibodies ; Anti-Rabbit IgG secondary antibodies ; Related news: Exploring Antiviral Immune Response
Calculated Mw	59 kDa
PTM	Polyglutamylated by TTL6 at Glu-286, leading to impair DNA-binding activity. Monoglutamylated at Glu-314 by TTL4, 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



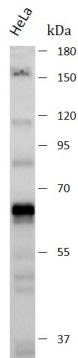
ARG40192 anti-cGAS antibody IHC-P image

Immunohistochemistry: Human colon carcinoma stained with ARG40192 anti-cGAS antibody at 1:50 dilution.



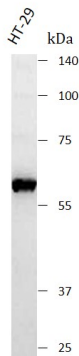
ARG40192 anti-cGAS antibody ICC/IF image

Immunofluorescence: U2OS stained with ARG40192 anti-cGAS antibody at 1:50 dilution.



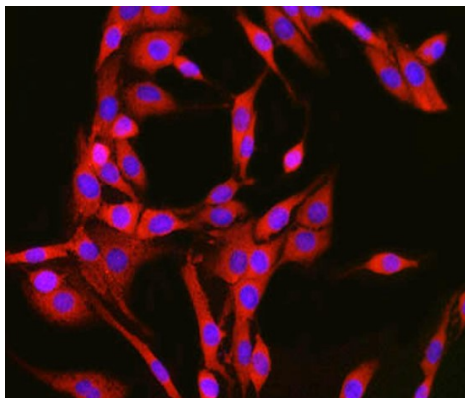
ARG40192 anti-cGAS antibody WB image

Western blot: HeLa stained with ARG40192 anti-cGAS antibody at 1:1000 dilution.



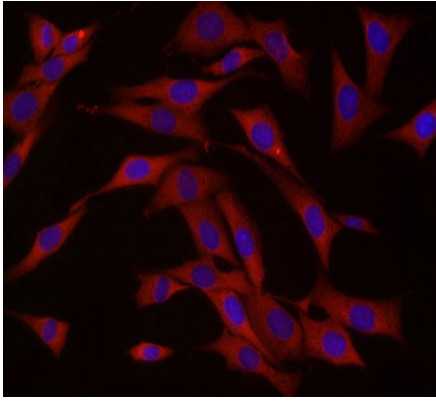
ARG40192 anti-cGAS antibody WB image

Western blot: HT-29 stained with ARG40192 anti-cGAS antibody at 1:1000 dilution.



ARG40192 anti-cGAS antibody ICC/IF image

Immunofluorescence: PC-12 stained with ARG40192 anti-cGAS antibody at 1:50 dilution.



ARG40192 anti-cGAS antibody ICC/IF image

Immunofluorescence: NIH/3T3 stained with ARG40192 anti-cGAS antibody at 1:50 dilution.