

## DATASHEET

# cGAS Mouse Monoclonal Antibody(C3946)

CAT. NO. AMA03558

### KEY FEATURES

Target	cGAS	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB	Conjugation	Unconjugated
Form / Buffer	Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

### BACKGROUND

Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (2',3'-cGAMP) from ATP and GTP and plays a key role in innate immunity from ATP and GTP and plays a key role in innate immunity . 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] . Acts as a key DNA sensor: directly binds double-stranded DNA (dsDNA), inducing the formation of liquid-like droplets in which CGAS is activated, leading to synthesis of 2',3'-cGAMP, a second messenger that binds to and activates STING1, thereby triggering type-I interferon production . Preferentially recognizes and binds curved long dsDNAs of a minimal length of 40 bp .

### APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
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\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

### PRODUCT OVERVIEW

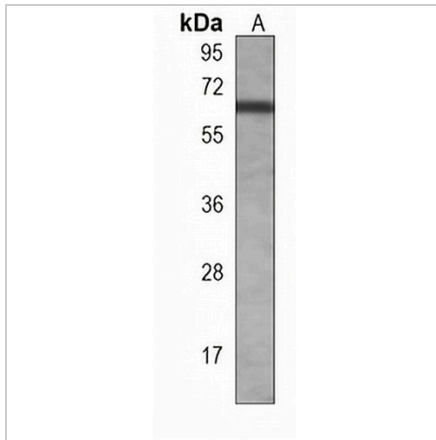
Description	Mouse monoclonal antibody to cGAS
Specificity	Recognizes endogenous levels of cGAS protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human cGAS. The exact sequence is proprietary.
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 58 kD; Observed: 59 kD
Form/Buffer	Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	C6orf150; Cyclic GMP-AMP synthase; cGAMP synthase; cGAS; h-cGAS; Mab-21 domain-containing protein 1
Gene Symbol	MB21D1
Entrez Gene	115004(Human)
SwissProt	Q8N884(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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**DATA**

Western blot analysis of cGAS expression in HeLa (A) whole cell lysates. (Predicted band size: 58 kD; Observed band size: 59 kD)

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.