

DATASHEET

cGAS Rabbit Polyclonal Antibody

CAT. NO. APA14740

KEY FEATURES

Target	cGAS	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, 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
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to cGAS
Specificity	Recognizes endogenous levels of cGAS protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide of human cGAS
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 58, 49 kD; Observed: 58, 49 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, 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); 214763(Mouse)
SwissProt	Q8N884(Human); Q8C6L5(Mouse)

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

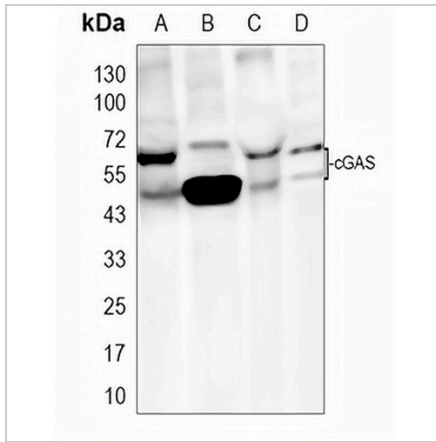
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

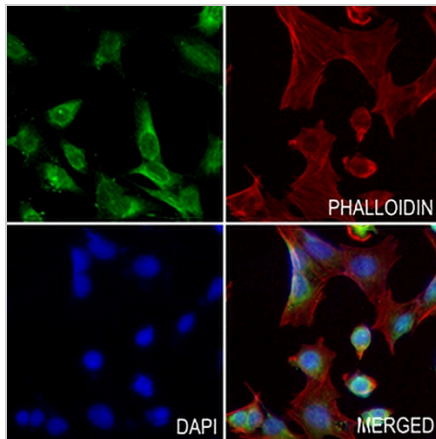
cGAS Rabbit Polyclonal Antibody

CAT. NO. APA14740

DATA



Western blot analysis of cGAS expression in mouse lung (A), mouse muscle (B), rat lung (C), rat muscle (D) whole cell lysates. (Predicted band size: 58, 49 kD; Observed band size: 58, 49 kD)



Immunofluorescent analysis of cGAS staining in MOVAS cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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.