

Recombinant Human cyclic GMP-AMP synthase Protein, His tagged

Cat. No. CGAS-201H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human CGAS protein (Q8N884-1) (Asp 157-Phe 522) with a His tag at the C-terminus was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	157-522aa
Description	Nucleotidyltransferase that catalyzes the formation of cyclic GMP-AMP (2',3'-cGAMP) 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. Acts as a key foreign DNA sensor, the presence of double-stranded DNA (dsDNA) in the cytoplasm being a danger signal that triggers the immune responses.
Tag	C-His
Molecular Mass	44.4 kDa

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Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	CGAS cyclic GMP-AMP synthase [Homo sapiens (human)]
Official Symbol	CGAS
Synonyms	CGAS; cyclic GMP-AMP synthase; D4; MB21D1; h-cGAS; C6orf150; cyclic GMP-AMP synthase; 2'3'-cGAMP synthase; DANGER family member 4; Mab-21 domain containing 1; cGAMP synthase; mab-21 domain-containing protein 1; protein MB21D1; EC 2.7.7.86
Gene ID	115004
mRNA Refseq	NM_138441.3
Protein Refseq	NP_612450.2
MIM	613973

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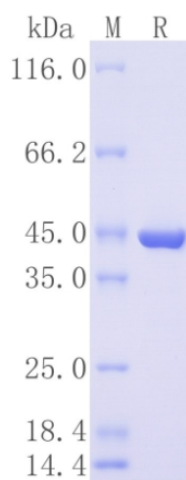
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UniProt ID

Q8N884

**Protein on SDS-
PAGE under
reducing (R)
condition.**



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