

Recombinant Human Cyclic GMP-AMP synthase(CGAS),partial

Catalog No: #AP74031

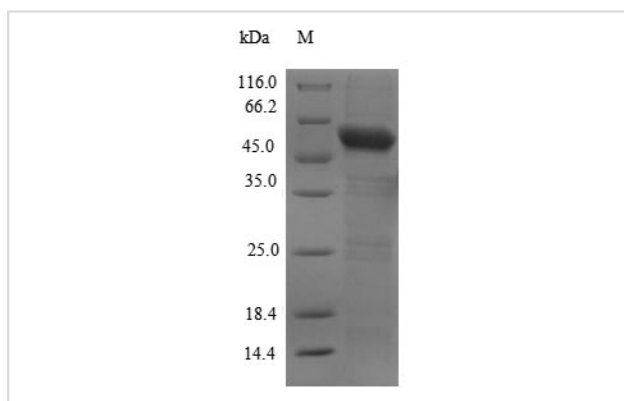
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Package Size: #AP74031-1 20ug #AP74031-2 100ug #AP74031-3 1mg

Description

Product Name	Recombinant Human Cyclic GMP-AMP synthase(CGAS),partial
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:161-522aaSequence Info:Partial
Other Names	Short name:cGAMP synthase Short name:cGAS Short name:h-cGAS Alternative name(s): 2'3'-cGAMP synthase Mab-21 domain-containing protein 1
Accession No.	Q8N884
Uniprot	Q8N884
GeneID	115004;
Calculated MW	58.3 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	GASKLRVLEKLEKLSRDDISTAAGMVKGVVDHLLRLKCDSAFRGVLLNTGSYYEHVKISAPNEFDVMFKLEV PRIQLEEYSNTRAYYFVKFKRNPKENPLSQFLEGEILSASKMLSFRKIIKEEINDIKDTDVIMKRKRGGSPAVTL LISEKISVDITLALESKSSWPASTQEGLRIQNWLSAKVRKQLRKPPLYLVPKHAKENGFGQEETWRLSFSHIEKE ILNHHGKSKTCCENKEEKCCRKDCLKLMKYLLLEQLKERFKDKKHLDFSSYHVKTAFFHVCTQNPQDSQWDR KDLGLCFDNCVTYFLQCLRTEKLENYFIPEFNLFSNLIDKRSKEFLTKQIEYERNNEFPVFDEF
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



Background

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. cGAMP can be transferred between cells by virtue of packaging within viral particles contributing to IFN-induction in newly infected cells in a cGAS-independent but TMEM173,STING-dependent manner (PubMed:26229115).

References

"Cyclic GMP-AMP synthase is a cytosolic DNA sensor that activates the type I interferon pathway."Sun L., Wu J., Du F., Chen X., Chen Z.J.Science 339:786-791(2013)

Research Topic:Others

Note: This product is for in vitro research use only