

Active Recombinant Human STING Protein, His tagged

Cat. No. STING-01H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant N-terminal His-tagged STING catalytic domain (138-379 aa, R232 variant) purified from E. coli
Species	Human
Source	E.coli
ProteinLength	138-379 aa
Description	This gene encodes a five transmembrane protein that functions as a major regulator of the innate immune response to viral and bacterial infections. The encoded protein is a pattern recognition receptor that detects cytosolic nucleic acids and transmits signals that activate type I interferon responses. The encoded protein has also been shown to play a role in apoptotic signaling by associating with type II major histocompatibility complex. Mutations in this gene are the cause of infantile-onset STING-associated vasculopathy. Alternate splicing results in multiple transcript variants.
Bio-activity	Serial dilutions of canonical 3'3'-cGAMP were incubated with 5 ug recombinant human STING R232 variant in 50 mM HEPES, pH 7.5, 150 mM NaCl, 10% glycerol, and SYPRO Orange dye at 4 centigrade. The reaction was read on Real-Time PCR Detection System at 4-100 centigrade. The binding of the ligand stabilizes the protein structure, increasing the melting temperature (T_m), which is detected via a thermal shift assay (TSA), also known as a differential scanning fluorimetry(DSF) assay.

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Purity	≥ 80% estimated by SDS-PAGE
Stability	≥ 2 years
Storage	At -80 centigrade
Storage Buffer	50 mM HEPES, pH 8.0, 150 mM sodium chloride, 10% glycerol
Shipping	Dry ice in continental US; may vary elsewhere
Reference	1. Burdette, D.L., Monroe, K.M., Sotelo-Troha, K., et al. STING is a direct innate immune sensor of cyclic-di-GMP. Nature 478(7370), 515-518 (2011). 2. Sun, L., Wu, J., Du, F., et al. Cyclic GMP-AMP synthase is a cytosolic DNA sensor that activates the type I interferon pathway. Science 339(6121), 786-791 (2013). 3. Wu, J., Sun, L., Chen, X., et al. Cyclic GMP-AMP is an endogenous second messenger in innate immune signaling by cytosolic DNA. Science 339(6121), 826-830 (2013).

GENE INFORMATION

Gene Name	STING1 stimulator of interferon response cGAMP interactor 1 [Homo sapiens (human)]
Official Symbol	STING1
Synonyms	STING1; stimulator of interferon response cGAMP interactor 1; ERIS; MITA; MPYS; SAVI; NET23; STING; hMITA; hSTING; TMEM173; STING-beta; stimulator of interferon genes protein; N-terminal methionine-proline-tyrosine-serine plasma membrane tetraspanner; endoplasmic reticulum IFN stimulator; endoplasmic reticulum interferon stimulator; mitochondrial mediator of IRF3 activation; stimulator of interferon protein; stimulator of interferon response cGAMP interactor-deltaC; stimulator of interferon response cGAMP interactor-deltaN; sting 1; transmembrane

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protein 173

Gene ID 340061

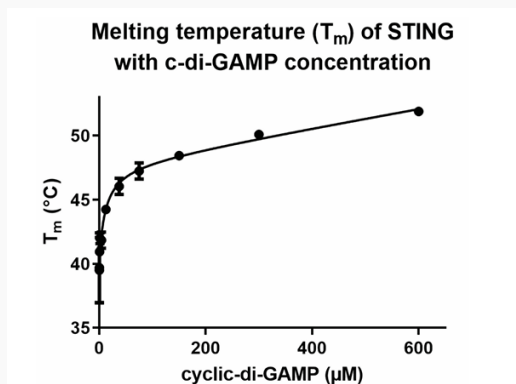
mRNA Refseq NM_198282

Protein Refseq NP_938023

MIM 612374

UniProt ID Q86WV6

Activity

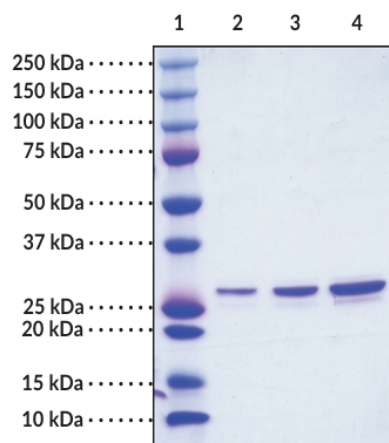


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SDS-PAGE



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