

PRODUCT INFORMATION



STING R232 variant (Y240A mutant; human, recombinant)

Item No. 40240

Overview and Properties

Synonyms: Endoplasmic Reticulum Interferon Stimulator, ERIS, Mediator of IRF3 Activation, MITA, Mitochondrial Mediator of IRF3 Activation, MPYS, Stimulator of Interferon Genes, Stimulator of Interferon Response cGAMP Interactor 1, STING1, N-Terminal Methionine-Proline-Tyrosine-Serine Plasma Membrane Tetraspanner, TMEM173, Transmembrane Protein 173

Source: Recombinant human N-terminal His-tagged STING R232 variant (Y240A mutant) expressed in *E. coli*

Amino Acids: 138-379

Uniprot No.: Q86WV6

Molecular Weight: 28.73 kDa

Storage: -80°C (as supplied)

Stability: ≥1 year

Purity: ≥65% estimated by SDS-PAGE

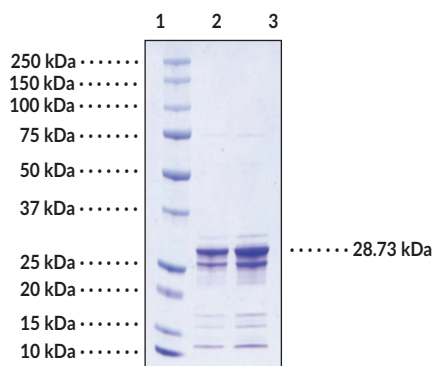
Supplied in: 50 mM HEPES, pH 8.0, 100 mM sodium chloride, 10% glycerol

Protein

Concentration: *batch specific* mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: STING R232 variant (2 µg)

Lane 3: STING R232 variant (4 µg)

SDS-PAGE Analysis of STING R232 variant (Y240A mutant; human, recombinant). This protein has a calculated molecular weight of 28.73 kDa.

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Description

Stimulator of interferon genes (STING) is a component of the innate immune response that recognizes and binds to cyclic dinucleotides (CDNs), which either originate from bacteria or are signals of intracellular stress, leading to activation of NF- κ B and transcription of immunomodulatory genes, including type I interferon (IFN).¹⁻⁵ The R232 variant is the most common variant in the human population, found at a frequency of 57.9% in the 1000 Genome Project.⁶ STING is composed of four transmembrane domains at the N-terminus, a helix α 1 domain involved in protein dimerization and ligand sensing, and a cytoplasmic C-terminal domain containing the cyclic dinucleotide-binding domain, as well as the TBK1/IRF1-binding site, TBK1 phosphorylation site, and IRF3 docking site.⁷ Various mutations in STING either reduce or increase its activity or binding affinity.^{6,8,9,10} The tyrosine-to-alanine substitution at position 240 (Y240A) reduces 2'3'-cGAMP binding to STING and prevents activation of the IFN pathway.¹¹

References

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