



# SZABO SCANDIC

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## Produktinformation



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# PRODUCT INFORMATION



## STING R232 variant (N242A mutant; human, recombinant)

Item No. 40241

### 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:** Active recombinant human N-terminal His-tagged STING R232 variant (N242A mutant) expressed in *E. coli*

**Amino Acids:** 138-379

**Uniprot No.:** Q86WV6

**Molecular Weight:** 28.7 kDa

**Storage:** -80°C (as supplied)

**Stability:** ≥1 year

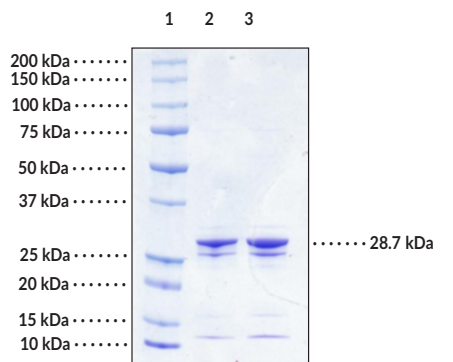
**Purity:** *batch specific* (≥80% estimated by SDS-PAGE)

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

**Protein Concentration:** *batch specific* mg/ml

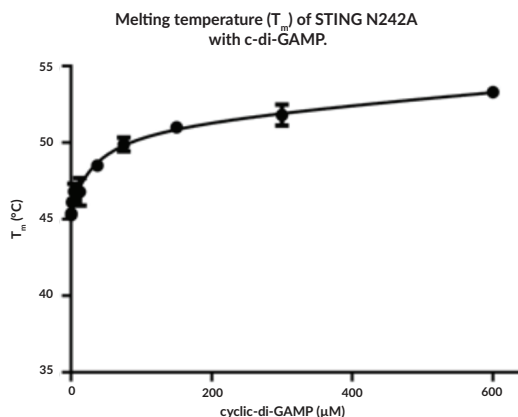
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: STING R232 variant (N242A mutant) (2 µg)  
Lane 3: STING R232 variant (N242A mutant) (4 µg)

**SDS-PAGE Analysis of STING R232 variant (N242A mutant).**  
This protein has an apparent molecular weight of 28.7 kDa.



**Binding activity of STING N242A variant.** STING N242A variant (5 µg) was incubated with serial dilutions of 3'3' cGAMP (Item No. 17966) and SPYRO™ Orange dye. The detected increase in  $T_m$  indicates binding.

**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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# PRODUCT INFORMATION



## 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- $\kappa$ B and transcription of immunomodulatory genes, including type I interferon (IFN).<sup>1-5</sup> The R232 variant is the most common variant in the human population, found at a frequency of 57.9% in the 1000 Genome Project.<sup>6</sup> STING is composed of four transmembrane domains at the N-terminus, a helix  $\alpha$ 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.<sup>7</sup> Various mutations in STING either reduce or increase its activity or binding affinity.<sup>6,8-10</sup> The asparagine-to-alanine substitution at position 242 (N242A) reduces c-di-GMP and 2'3'-cGAMP binding to STING.<sup>11,12</sup> Cayman's STING R232 variant (N242A mutant; human, recombinant) protein can be used for ELISA, enzyme activity assay, and Western blot applications.

## References

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