

Recombinant human STING

CHO expressed human STING (R232) protein

Catalog code: rec-hsting

<http://www.invivogen.com/recombinant-hsting>

For research use only

Version # 18A08-MM

PRODUCT INFORMATION

Content:

- 25 µg of recombinant human STING (R232 variant)
- 1.5 ml sterile endotoxin-free water

Storage and stability:

- Recombinant human STING is shipped at room temperature. Upon receipt it should be stored at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human STING and store at -20 °C. Resuspended product is stable for 6 months when properly stored. Avoid repeated freeze-thaw cycles.

Quality control

- Purity greater than 90% as determined by SDS-PAGE
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

STING (stimulator of interferon genes; also known as TMEM173, MITA, MPYS, and ERIS) is essential for the interferon response to microbial or self-DNA, and acts as a direct sensor of cyclic dinucleotides (CDNs). CDNs are important messengers in bacteria, affecting numerous responses of the prokaryotic cell, but also in mammalian cells, acting as agonists of the innate immune response. STING senses the presence of CDNs in the cytoplasm through its soluble CDN-binding domain¹. Several non-synonymous variants of STING have been described in the human population. The prevalent human STING isoform (~60% of the human population) contains an arginine at position 232 (R232) and is thus considered as wild-type^{2,3}. Recombinant human STING corresponds to the cytoplasmic domain of the R232 variant. This protein is produced in Chinese hamster ovary (CHO) cells transfected with a DNA sequence encoding a polypeptide chain containing the soluble CDN-binding domain. Recombinant human STING was purified by affinity chromatography.

1. Yin Q. *et al.*, 2015. Structural biology of innate immunity. *Annu Rev Immunol.* 33:393-416. 2. Jin L. *et al.*, 2011. Identification and characterization of a loss-of-function human MPYS variant. *Genes Immun.* 12(4):263-9. 3. Yi G. *et al.*, 2013. Single nucleotide polymorphisms of human STING can affect Innate immune response to cyclic dinucleotides. *PLoS One* 8(10):e77846.

CHARACTERISTICS

Source: Mammalian; CHO cells

Predicted molecular mass: 27.3 kDa

Molecular mass: ~27kDa (SDS-PAGE)

Amino acids: 137-379

Gene Name: TMEM173

Gene ID: 340061

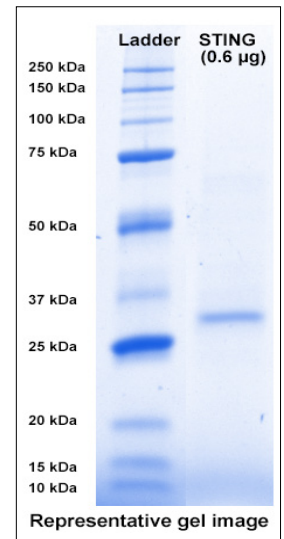
UniProt ID: Q86WV6

Variant: R232

Formulation: Recombinant human STING was lyophilized from a 0.2 µm filtered phosphate buffer solution (pH 7.4) with 5% (w/v) saccharose

Sequence:

KGLAPAEISAVCEKGNFNVAHG
LAWSYYIGYLRLLPELQARIRT
YNQHYNNLLRGAVSQRLYILLP
LDCGVDPNLSMADPNIRFLDKL
PQQTGDRAGIKDRVYSNSIYELLENGQRAGTCVLEYATPL
QTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILADAPES
QNNCRLLIAYQEPADDSFSLSQEVLRLRQEEKEEVTVGS
LKTSAVPSTSTMSQEPPELLISGMEKPLPLRTDFS



METHOD

Preparation of stock solution (250 µg/ml):

1. Add 100 µl of sterile water (provided) to 25 µg of recombinant human STING.
2. Mix by pipetting. Do not vortex.
3. Prepare aliquots of recombinant human STING and store at -20 °C. Avoid freeze-thaw cycles.

APPLICATIONS

- Analyzing protein-ligand interactions
- ELISA
- Western blotting

RELATED PRODUCTS

Product	Catalog Code
2'3'-cGAMP	tlrl-nacga23
3'3'-cGAMP	tlrl-nacga
THP1-Dual™ KI-hSTING-R232 Cells	thpd-r232

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