

# PRODUCT INFORMATION



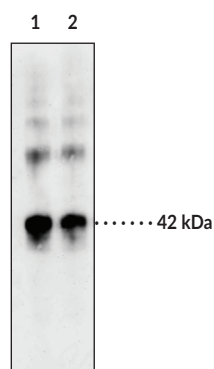
## STING Polyclonal Antibody

Item No. 17857

### Overview and Properties

<b>Contents:</b>	This vial contains 250 µg of protein A-purified polyclonal antibody.
<b>Synonyms:</b>	Endoplasmic Reticulum Interferon Stimulator, ERIS, Mediator of IRF3 Activation, MITA, MPYS, Stimulator of Interferon Genes, Stimulator of Interferon Genes, TMEM173, Transmembrane Protein 173
<b>Immunogen:</b>	Human recombinant STING (Item No. 15139)
<b>Species Reactivity:</b>	(+) Human; other species not tested
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Stability:</b>	≥3 years
<b>Host:</b>	Rabbit
<b>Applications:</b>	ELISA, Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution for IP and WB is 1:200 and 1:10,000 for ELISA. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: STING recombinant protein (20 ng)  
Lane 2: STING recombinant protein (5 ng)

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.

WARRANTY AND LIMITATION OF REMEDY  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Stimulator of Interferon Genes (STING) is a component of the innate immune response. STING binds to cyclic dinucleotides, which are bacterial second messengers.<sup>1</sup> Recognition of cyclic-di-GMP (c-di-GMP), c-di-AMP, or c-GMP-AMP leads to activation of NF-κB and transcription of immunomodulatory genes, including type I interferon (IFN).<sup>2-4</sup> Loss of STING regulation contributes to autoimmune disorders through increased IFN activity.<sup>5</sup> The gene for STING is mutated in the mouse strain Goldenticket, which consequently lacks a type I IFN response to *Listeria* infection.<sup>6</sup> Activation of STING by the flavonoid 5,6-dimethylxanthenone-4-acetic acid (DMXAA; Item No. 14617) has been shown to kill solid tumors in mice, but the binding site of DMXAA is not conserved in human STING.<sup>7,8</sup>

## References

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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).
4. Konno, H., Konno, K., and Barber, G.N. Cyclic dinucleotides trigger ULK1 (ATG1) phosphorylation of STING to prevent sustained innate immune signaling. *Cell* **155(3)**, 688-698 (2013).
5. Gall, A., Treuting, P., Elkon, K.B., *et al.* Autoimmunity initiates in non-hematopoietic cells and progresses via lymphocytes in an interferon-dependent autoimmune disease. *Immunity* **36(1)**, 120-131 (2012).
6. Sauer, J.D., Sotelo-Troha, K., von Moltke, J., *et al.* The N-ethyl-N-nitrosourea-induced Goldenticket mouse mutant reveals an essential function of sting in the *in vivo* interferon response to *Listeria* monocytogenes and cyclic dinucleotides. *Infect. Immun.* **79(2)**, 688-694 (2011).
7. Kim, S., Li, L., Maliga, Z., *et al.* Anticancer flavonoids are mouse-selective STING agonists ACS. *Chem. Biol.* **8(7)**, 1396-1401 (2013).
8. Gao, P., Ascano, M., Zillinger, T., *et al.* Structure-function analysis of STING activation by c[G(2',5')pA(3',5')p] and targeting by antiviral DMXAA. *Cell* **154(4)**, 748-762 (2013).