

PRODUCT INFORMATION



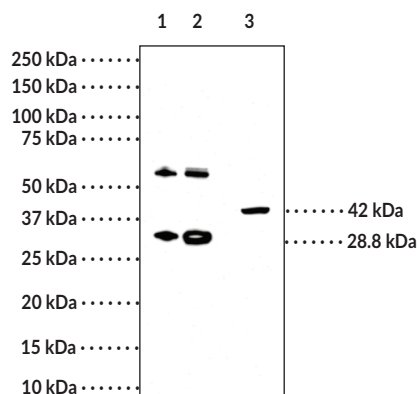
STING Monoclonal Antibody (Clone 2C8)

Item No. 17856

Overview and Properties

Contents:	This vial contains 100 µg of protein G-purified monoclonal antibody
Synonyms:	Endoplasmic Reticulum Interferon Stimulator, ERIS, Mediator of IRF3 Activation, MITA, MPYS, Stimulator of Interferon Genes, TMEM173, Transmembrane Protein 173
Immunogen:	Human recombinant STING protein AA 139-379
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	Q86WV6
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone:	2C8
Host:	Mouse
Isotype:	IgG1
Applications:	ELISA, immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilutions are 1:1,000 for ELISA and WB, and 1:200 for IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: STING (139-379) Recombinant Protein (1 ng)
Lane 2: STING (139-379) Recombinant Protein (5 ng)
Lane 3: THP1 Cell Lysate (50 µg)

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

Stimulator of Interferon Genes (STING) is a component of the innate immune response. STING binds to cyclic dinucleotides, which are bacterial second messengers.¹ Recognition of cyclic-di-GMP (c-di-GMP), c-di-AMP, or c-GMP-AMP leads to activation of NF- κ B and transcription of immunomodulatory genes, including type I interferon (IFN).²⁻⁴ Loss of STING regulation contributes to autoimmune disorders through increased IFN activity.⁵ The gene for STING is mutated in the mouse strain Goldenticket, which consequently lacks a type I IFN response to *Listeria* infection.⁶ 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.^{7,8} Cayman's STING Monoclonal Antibody (Clone 2C8) can be used for ELISA, immunohistochemistry, and Western blot applications. The antibody recognizes STING at 42 kDa from human samples.

References

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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).
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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).
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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).
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8. Gao, P., Ascano, M., Zillinger, T., *et al.* Structure-function analysis of STING activation by c[G(2',5')pA(3',5')] and targeting by antiviral DMXAA. *Cell* **154**(4), 748-762 (2013).

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