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STING Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #340061
Swiss-Prot Acc. #Q86WV6

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M	35 kDa	Rabbit**

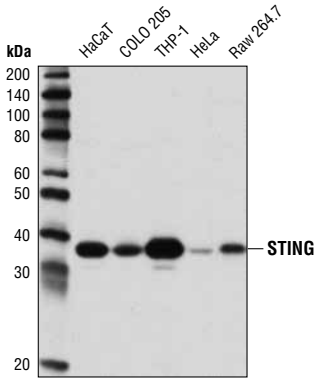
Background: Stimulator of interferon genes (STING, TMEM173, MITA) is a transmembrane adaptor protein that is a critical component of the cellular innate immune response to pathogenic cytoplasmic DNA (1,2). STING is a ubiquitously expressed protein found predominantly in the ER (1). The enzyme cGAMP synthase (cGAS) produces the second messenger cyclic-GMP-AMP (cGAMP) from cytoplasmic DNA (3,4). cGAMP binds and activates STING (3,4). In addition, detection of cytoplasmic DNA by nucleic acid sensors, including DDX41 or IFI16, results in STING activation (5,6). Following activation, STING translocates with TBK1 to perinuclear endosomes (7). The TBK1 kinase phosphorylates and activates interferon regulatory factors (IRFs) and NF-κB, which leads to the induction of type I interferon and other immune response genes (1,2,7).

Specificity/Sensitivity: STING Antibody recognizes endogenous levels of total STING protein.

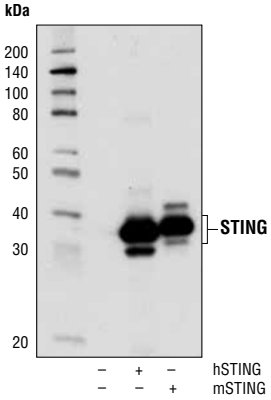
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu325 of human STING protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

(1) Ishikawa, H. and Barber, G.N. (2008) *Nature* 455, 674-8.
(2) Zhong, B. et al. (2008) *Immunity* 29, 538-50.
(3) Sun, L. et al. (2013) *Science* 339, 786-91.
(4) Wu, J. et al. (2013) *Science* 339, 826-30.
(5) Zhang, Z. et al. (2011) *Nat Immunol* 12, 959-65.
(6) Unterholzner, L. et al. (2010) *Nat Immunol* 11, 997-1004.
(7) Ishikawa, H. et al. (2009) *Nature* 461, 788-92.



Western blot analysis of extracts from various cell lines using STING Antibody.



Western blot analysis of extracts from 293T cells, mock transfected (-), transfected with a cDNA expression construct encoding human STING (hSTING; +), or transfected with a cDNA expression constructed encoding mouse STING (mSTING; +), using STING Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

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Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.