

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STING/TMEM173 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human STING/TMEM173 Ala215-Ser379 Accession # Q86WV6
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

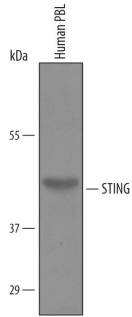
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below
Knockout Validated	STING/TMEM173 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in STING/TMEM173 knockout HeLa cell line.	

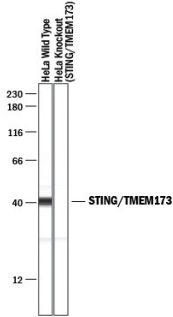
DATA

Western Blot



Detection of Human STING/TMEM173 by Western Blot. Western blot shows lysates of human peripheral blood lymphocytes (PBL). PVDF Membrane was probed with 1 µg/mL of Human/Mouse STING/TMEM173 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6516) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for STING/TMEM173 at approximately 42 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Simple Western



Detection of Human STING/TMEM173 by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma parental cell line and STING/TMEM173 knockout HeLa cell line (KO), loaded at 0.2 mg/mL. A specific band was detected for STING/TMEM173 at approximately 41 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. Sheep Anti-Human STING/TMEM173 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6516) was used at 10 µg/mL followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

STING (Stimulator of interferon genes; also ERIS, MPYS, MITA and TMEM173) is a 40-42 kDa 4-transmembrane protein that mediates both antiviral and MHC-II antigen recognition responses. STING is found in the ER, mitochondrial outer membrane and plasma membrane. It acts as an adaptor protein for intracellular viral detection molecules, participating in the induction of type I interferon. It also may play a role in the initiation of apoptosis following MHC-II engagement. Cells known to express STING include B cells, dendritic cells, macrophages, and monocytes. Human STING is 379 amino acids (aa) in length. It contains an N-terminal cytoplasmic region (aa 1-20), four transmembrane segments (aa 21-173), and a C-terminal cytoplasmic domain (aa 174-379). Ubiquitination occurs at Lys150, and phosphorylation occurs at Ser358. STING forms 80 kDa homodimers. There are two potential splice forms, one that shows a 25 aa substitution for aa 1-173, and another that possesses an alternative start site at Met215, coupled to a premature truncation following Arg334. Over aa 215-379, human STING shares 76% aa identity with mouse STING.