abcam

ab239074

Anti-STING antibody [EPR13130-55]

Anti-STING antibody [EPR13130-55] (ab239074) is a rabbit monoclonal antibody detecting STING in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human** samples.

Enhanced IHC validation data - Download the data
- detailed IHC expression profiling in normal and clinically relevant cancer FFPE TMAs- lung, bladder, pancreatic, colorectal and stomach
- protocol for BOND RX™
KO validated for confirmed specificity
Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13130-55
Purification technique	Affinity purification Protein A
Concentration	0.514 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/500
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information STING1

Function

Facilitator of innate immune signaling that acts as a sensor of cytosolic DNA from bacteria and viruses and promotes the production of type I interferon (IFN-alpha and IFN-beta) (PubMed:18724357, PubMed:18818105, PubMed:19433799, PubMed:19776740, PubMed:23027953, PubMed:23747010, PubMed:23910378, PubMed:27801882, PubMed:29973723, PubMed:30842659, PubMed:35045565, PubMed:35388221, PubMed:36808561, PubMed:37832545, PubMed:25704810, PubMed:39255680). Innate immune response is triggered in response to non-CpG double-stranded DNA from viruses and bacteria delivered to the cytoplasm (PubMed:26300263). Acts by binding cyclic dinucleotides: recognizes and binds cyclic di-GMP (c-di-GMP), a second messenger produced by bacteria, cyclic UMP-AMP (2',3'-cUAMP), and cyclic GMP-AMP (cGAMP), a messenger produced by CGAS in response to DNA virus in the cytosol (PubMed:21947006, PubMed:23258412, PubMed:23707065, PubMed:23722158, PubMed:23747010, PubMed:23910378, PubMed:26229117, PubMed:30842659, PubMed:35388221, PubMed:37379839). Upon binding to c-di-GMP, cUAMP or cGAMP, STING1 oligomerizes, translocates from the endoplasmic reticulum and is phosphorylated by TBK1 on the pLxIS motif, leading to recruitment and subsequent activation of the transcription factor IRF3 to induce expression of type I interferon and exert a potent anti-viral state (PubMed:22394562, PubMed:25636800, PubMed:29973723, PubMed:30842653, PubMed:35045565, PubMed:35388221). Exhibits 2',3' phosphodiester linkage-specific ligand recognition: can bind both 2'-3' linked cGAMP (2'-3'-cGAMP) and 3'-3' linked cGAMP but is preferentially activated by 2'-3' linked cGAMP (PubMed:23747010, PubMed:23910378, PubMed:26300263). The preference for 2'-3'-cGAMP, compared to other linkage isomers is probably due to the ligand itself, whichs adopts an organized free-ligand conformation that resembles the STING1-bound conformation and pays low energy costs in changing into the active conformation (PubMed:26150511). In addition to promote the production of type I interferons, plays a direct role in autophagy (PubMed:30568238, PubMed:30842662). Following cGAMP-binding, STING1 buds from the endoplasmic reticulum into COPII vesicles, which then form the endoplasmic reticulum-Golgi intermediate compartment (ERGIC) (PubMed:30842662). The ERGIC serves as the membrane source for WIPI2 recruitment and LC3 lipidation, leading to formation of autophagosomes that target cytosolic DNA or DNA viruses for degradation by the lysosome (PubMed:30842662). Promotes autophagy by acting as a proton channel that directs proton efflux from the Golgi to facilitate MAP1LC3B/LC3B lipidation (PubMed:37535724). The autophagy- and interferon-inducing activities can be uncoupled and autophagy induction is independent of TBK1 phosphorylation (PubMed:30568238, PubMed:30842662). Autophagy is also triggered upon infection by bacteria: following c-di-GMP-binding, which is produced by live Gram-positive bacteria, promotes reticulophagy (By similarity). May be involved in translocon function, the translocon possibly being able to influence the induction of type I interferons (PubMed:18724357). May be involved in transduction of apoptotic signals via its association with the major histocompatibility complex class II (MHC-II) (By similarity). Involved in intercellular immune signaling. Cross-activated by 2',3'-cGAMP previously generated in virus-infected cells, triggers type I interferon signaling in macrophages and uninfected neighboring cells to propagate and amplify the antiviral immune response. (Microbial infection) Antiviral activity is antagonized by oncoproteins, such as papillomavirus (HPV) protein E7 and adenovirus early E1A protein

(PubMed:26405230). Such oncoproteins prevent the ability to sense cytosolic DNA (PubMed:26405230).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-STING antibody [EPR13130-55] (ab239074) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of STING?
Anti-STING [EPR13130-55] (ab239074) specifically detects a band for STING (UniProt: Q86WV6) at a molecular weight of 42kDa.

Specificity confirmed
The specificity of Anti-STING antibody [EPR13130-55] (ab239074) has been confirmed by Western blot testing in STING1 Knockout THP-1 cell line, ab270493.

Other related products
We have a range of other formats of antibody clone [EPR13130-55] also available for your convenience: ab239074, Carrier free - ab242019, Carrier free - ab302857, Carrier free - ab305187

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity

- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The stimulator of interferon genes (STING) also known as TMEM173 or MPYS is a critical transmembrane protein with a molecular weight of approximately 42 kDa. It is primarily expressed in the endoplasmic reticulum of various cell types including immune cells where it plays a central role in sensing cytosolic DNA. STING binds to cyclic dinucleotides produced by the enzyme cGAS upon recognition of aberrant DNA in the cytosol. This binding initiates activation and translocation of STING to the Golgi apparatus facilitating further signaling events.
Biological function summary	STING serves as a pivotal regulator in the innate immune response to viral and bacterial infections. It operates by forming a signaling complex with kinases and other effector proteins which subsequently leads to the activation of transcription factors such as IRF3 and NF-kB. These transcription factors then induce the expression of type I interferons and other cytokines important for mounting an effective antiviral response. The STING pathway therefore enhances the immune system's ability to detect and respond to pathogens.
Pathways	The activity of STING is integral to the cGAS-STING pathway a significant cytosolic DNA-sensing pathway involved in innate immunity. Upon activation STING interacts with TBK1 a kinase that further phosphorylates IRF3 promoting its nuclear translocation and activation. Beyond this STING also intersects with pathways involving autophagy a cellular process necessary for clearing pathogens and damaged cellular components. Through these pathways STING critically contributes to upholding cellular homeostasis and immune defense.
Associated diseases and disorders	The dysregulation of STING is linked to autoinflammatory diseases and certain cancers. Abnormal STING activation can lead to chronic inflammation a feature observed in diseases such as STING-associated vasculopathy with onset in infancy (SAVI). STING's role in cancer is also notable where its ability to activate immune cells can be harnessed in immunotherapy yet its chronic activation may promote tumorigenesis. In cancer STING often interacts with proteins like K-Ras influencing tumor growth and response to therapies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

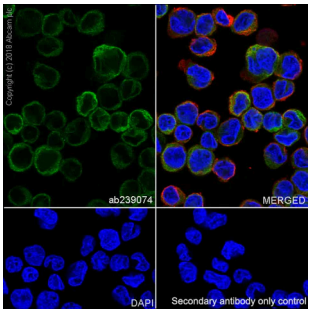
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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15 product images

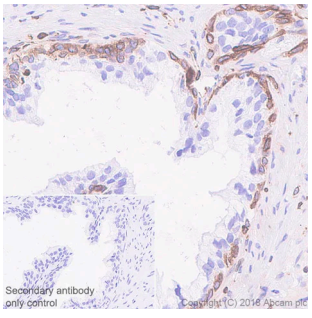


Immunocytochemistry/ Immunofluorescence - Anti-STING antibody [EPR13130-55] (ab239074)

STING Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-STING antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (human monocytic leukemia cell line) cells labeling TMEM173 with ab239074 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in THP-1 cell line is observed.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



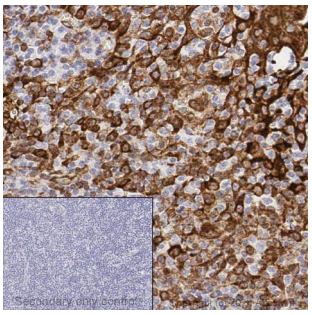
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STING antibody [EPR13130-55] (ab239074)

STING Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STING antibody

Immunohistochemical analysis of paraffin-embedded human prostate hyperplasia tissue labeling TMEM173 with ab239074 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in basal cells of human prostate hyperplasia is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

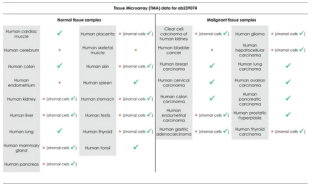
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STING antibody [EPR13130-55] (ab239074)

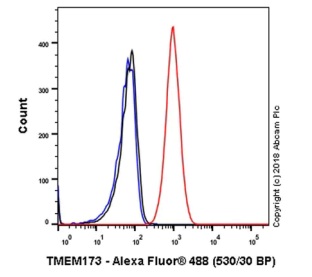
STING Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STING antibody

Immunohistochemical analysis of formalin fixed paraffin (FFPE) embedded tonsil labelling STING with ab239074 at a concentration of 0.01µg/ml. The immunostaining was performed on a Ventana DISCOVERY ULTRA (Roche Tissue Diagnostics) instrument with an OptiView DAB IHC Detection Kit. Heat mediated antigen retrieval was conducted for 32 min with DISCOVERY cell conditioning solution (CC1) 100°C, pH 8.5. ab239074 was incubated at 37°C for 16min. Sections were counterstained is with Hematoxylin II. Image inset shows absence of staining in secondary antibody only control



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STING antibody [EPR13130-55] (ab239074)

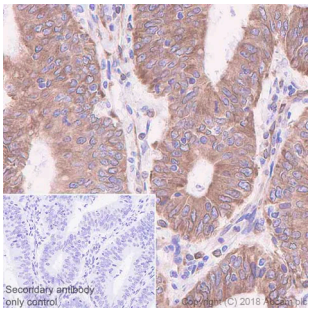
Tissue Microarrays stained for "Anti-STING antibody [EPR13130-55]" using "ab239074"in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab239074 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).



Flow Cytometry (Intracellular) - Anti-STING antibody [EPR13130-55] (ab239074)

STING Flow Cytometry (Intracellular) staining using rabbit Anti-STING antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized THP-1 (human monocytic leukemia cell line) cell line labeling TMEM173 with ab239074 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.



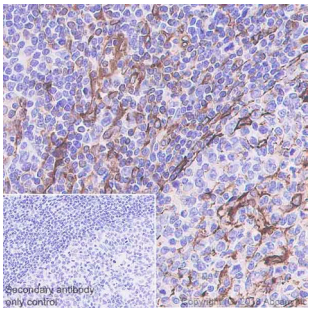
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STING antibody [EPR13130-55] (ab239074)

STING Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STING antibody

Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling TMEM173 with ab239074 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in human colon cancer (PMID: 26748708) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

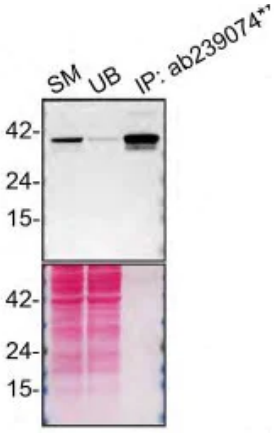


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-STING antibody [EPR13130-55] (ab239074)

STING Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-STING antibody

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling TMEM173 with ab239074 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in human tonsil (PMID:28874664) is observed. Counter stained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

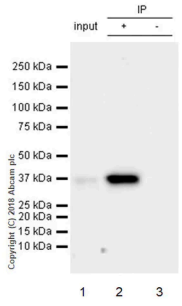


Immunoprecipitation - Anti-STING antibody [EPR13130-55] (ab239074)

Immunoprecipitation of STING1 in THP-1 cells. Lysates were prepared and immunoprecipitation was performed using 2 µg of ab239074 pre-coupled to Protein A beads. Samples were then washed and processed for western blot.

These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
Immunoprecipitation - Anti-STING antibody [EPR13130-55] (ab239074) at 2 µg

All lanes:
THP-1 cells



Immunoprecipitation - Anti-STING antibody [EPR13130-55] (ab239074)

TMEM173 was immunoprecipitated from 0.35 mg of THP-1 (human monocytic leukemia cell line) whole cell lysate with ab239074 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab239074 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.
Lane 1: THP-1 whole cell lysate 10 µg (Input).

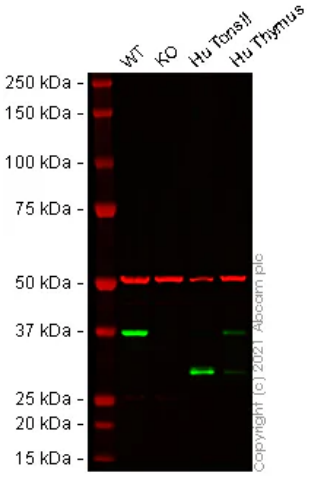
Lane 2: ab239074 IP in THP-1 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab239074 in THP-1 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 30 seconds.
All lanes:
Immunoprecipitation - Anti-STING antibody [EPR13130-55] (ab239074)

Predicted band size: 42 kDa



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

STING Western blot staining using rabbit Anti-STING antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab239074 observed at 37 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.
ab239074 was shown to react with TMEM173 in wild-type THP-1 cells in Western blot with loss of signal observed in TMEM173 knockout cell line ab270493 (TMEM173 knockout cell lysae ab270516). Wild-type THP-1 and TMEM173 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab239074 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.

All lanes:
Western blot - Anti-STING antibody [EPR13130-55] (ab239074) at 1/1000 dilution

Lane 1:
Wild-type THP-1 cell lysate at 20 µg

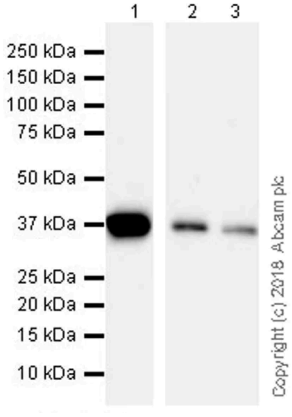
Lane 3:
Human Tonsil tissue lysate at 20 µg

Lane 4:
Human Thymus tissue lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 42 kDa

Observed band size: 37 kDa



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-STING antibody [EPR13130-55] (ab239074) at 1/1000 dilution

Lane 1:
THP-1 (human monocytic leukemia cell line) whole cell lysate at 20 µg

Lane 2:
HT1080 (human fibrosarcoma cell line) whole cell lysate at 20 µg

Lane 3:
Human tonsil lysate at 20 µg

Secondary

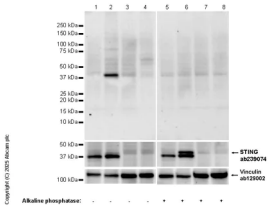
All lanes:

Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 42 kDa

Observed band size: 36 kDa

Exposure time: 3min



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

STING Western blot staining using rabbit Anti-STING antibody

Blocking and diluting buffer and concentration: 1% BSA/TBST.

Performed under reducing conditions.

In Western blot, ab324229 was shown to bind specifically to STING (phospho S366). Target of interest was observed at 40kDa in wild-type THP-1 cell lysates (lane 2) with no signal observed at this size in STING knockout cell line (lane 3-4) (lane 3, knockout cell line ab270493 / knockout cell lysate ab270516).

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-STING antibody [EPR13130-55] (ab239074) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-STING (phospho S366) antibody [EPR29040-93] (ab324229) at 1/1000 dilution

Lane 1:
Untreated Wild-type THP-1 (human monocytic leukemia monocyte) whole cell lysate (untreated membrane) at 20 µg

Lane 2:
Wild-type THP-1 treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 3:
Untreated STING knockout THP-1 whole cell lysate (untreated membrane) at 20 µg

Lane 4:
STING knockout THP-1 treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate (untreated membrane) at 20 µg

Lane 5:
Untreated Wild-type THP-1 (human monocytic leukemia monocyte) whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 6:
Wild-type THP-1 treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 7:
Untreated STING knockout THP-1 whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Lane 8:
STING knockout THP-1 treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then

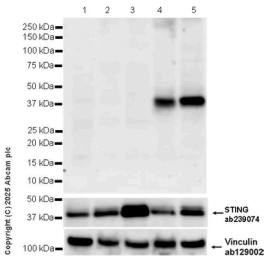
added for additional 30 minutes, whole cell lysate (alkaline phosphatase treated membrane) at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 40 kDa, 124 kDa

Exposure time: 59s



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

STING Western blot staining using rabbit Anti-STING antibody

Blocking and diluting buffer and concentration: 1% BSA/TBST.

In Western blot, Anti-Vinculin antibody [EPR8185] (ab129002) staining at 1/10000 dilution.

In Western blot, Anti-STING antibody [EPR13130-55] (ab239074) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-STING (phospho S366) antibody [EPR29040-93] (ab324229) at 1/1000 dilution

Lane 1:
Untreated THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

Lane 2:
THP-1 treated first with 80nM TPA for 24 hours, then change fresh medium, transfect 10ug/ml poly(dA:dT) for 6 hours, whole cell lysate at 20 µg

Lane 3:
THP-1 treated first with 80nM TPA for 24 hours, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, whole cell lysate at 20 µg

Lane 4:
THP-1 treated first with 80nM TPA for 24 hours, then change fresh medium, transfect 10ug/ml poly(dA:dT) for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate at 20 µg

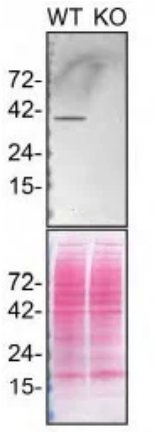
Lane 5:
THP-1 treated first with 80nM TPA for 24 hours, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 40 kDa, 124 kDa

Exposure time: 59s



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

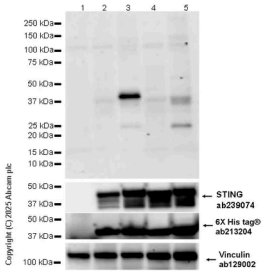
STING Western blot staining using rabbit Anti-STING antibody

ab239074 was shown to react with STING1 in wild-type THP-1 cells in Western blot with loss of signal observed in STING1 knockout cell line ab270493. Wild-type THP-1 and STING1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab239074 overnight at 4 °C at a 1/1000 dilution. Blots were incubated with secondary antibodies at 0.2 µg/mL before imaging.

These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
Western blot - Anti-STING antibody [EPR13130-55] (ab239074) at 1/1000 dilution

Lane 1:
Wild-type THP-1 lysate at 40 µg

Lane 2:
STING1 knock-out THP-1 lysate at 40 µg



Western blot - Anti-STING antibody [EPR13130-55] (ab239074)

STING Western blot staining using rabbit Anti-STING antibody

Blocking and diluting buffer and concentration: 1% BSA/TBST.

Anti-Vinculin antibody [EPR8185] (ab129002) (1/10000) (124KDa); Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) (1/5000);

In Western blot, Anti-STING antibody [EPR13130-55] (ab239074) staining at 1/1000 dilution.

All lanes:
Western blot - Anti-STING (phospho S366) antibody [EPR29040-93] (ab324229) at 1/1000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human wild-type STING expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 3:
293T cells transfected with a human wild-type STING expression vector containing a myc-His-tag® treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate at 20 µg

Lane 4:
293T cells transfected with a human STING (S366A mutation) expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 5:
293T cells transfected with a human STING (S366A mutation) expression vector containing a myc-His-tag® treated first with 80nM TPA for 24h, then change fresh medium, transfect 10ug/ml

poly(dA:dT) and treated with 10 uM MG-132 for 6 hours, 100 uM Calyculin A was then added for additional 30 minutes, whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 40 kDa, 124 kDa

Exposure time: 59s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.