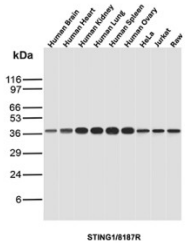
ERIS Antibody STING1/8187R / Endoplasmic Reticulum Interferon Stimulator Antibody [clone STING1/8187R] (V5101)

Catalog No.	Formulation	Size
V5101-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5101-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5101SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

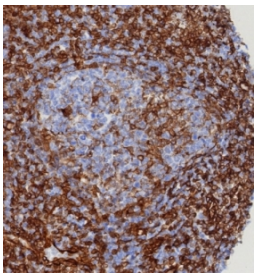
Recombinant RABBIT MONOCLONAL

Bulk quote request

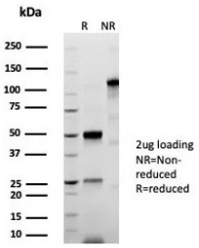
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	STING1/8187R
Purity	Protein A/G affinity
UniProt	Q86WV6
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (Human) Western blot: 2-4ug/ml (Human/Mouse)
Limitations	This ERIS Antibody STING1/8187R / Endoplasmic Reticulum Interferon Stimulator Antibody is available for research use only.



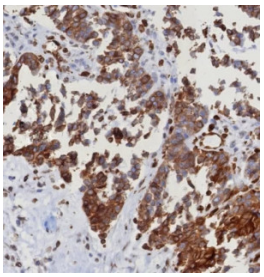
ERIS Antibody STING1/8187R Detects STING1 in Human and Mouse Samples WB. Western blot analysis of human brain, heart, kidney, lung, spleen and ovary tissue lysates, human HeLa and Jurkat cell lysates, and mouse RAW cell lysate using ERIS Antibody, clone STING1/8187R. A strong, discrete band is detected at approximately 36-37 kDa across all nine samples, with minimal nonspecific reactivity. The consistent banding across multiple tissues and cell lines demonstrates recognition of STING1, also known as Endoplasmic Reticulum Interferon Stimulator, by this recombinant rabbit monoclonal antibody.



ERIS Antibody STING1/8187R in Human Spleen IHC. Immunohistochemistry staining of FFPE human spleen tissue with ERIS Antibody, clone STING1/8187R. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. Strong cytoplasmic staining is evident throughout much of the surrounding splenic tissue, with comparatively heterogeneous and reduced staining within the central paler region. This pattern demonstrates detection of STING1/ERIS in human spleen tissue.



Purified ERIS Antibody STING1/8187R SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free ERIS Antibody, clone STING1/8187R, under reducing (R) and non-reducing (NR) conditions. Under reducing conditions, the preparation shows the expected antibody heavy and light chain components near approximately 50 and 25 kDa, respectively. Under non-reducing conditions, the intact recombinant rabbit monoclonal antibody migrates predominantly near approximately 100-150 kDa. This analysis demonstrates the integrity of the purified Endoplasmic Reticulum Interferon Stimulator Antibody preparation.



ERIS Antibody STING1/8187R in Human Serous Ovarian Carcinoma IHC. Immunohistochemistry staining of FFPE human serous ovarian carcinoma tissue with ERIS Antibody, clone STING1/8187R. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. Strong brown cytoplasmic immunoreactivity is visible in numerous tumor-associated cells, with heterogeneous staining across the tissue. The result demonstrates detection of STING1, also known as Endoplasmic Reticulum Interferon Stimulator, within the human ovarian carcinoma microenvironment.

Description

ERIS Antibody STING1/8187R / Endoplasmic Reticulum Interferon Stimulator Antibody recognizes STING1, a transmembrane signaling protein encoded by the TMEM173 gene. STING1 is widely known as STING and has also been described as ERIS, MITA, and MPYS. The protein functions as a central signaling adaptor of the innate immune response to cytosolic DNA, connecting detection of intracellular DNA with induction of type I interferons and other immune mediators.

ERIS is primarily associated with the endoplasmic reticulum under resting conditions. During activation of the cGAS-STING pathway, cyclic GMP-AMP synthase detects double-stranded DNA in the cytosol and produces the second messenger cGAMP. Binding of cGAMP activates STING1 and promotes its trafficking from the endoplasmic reticulum toward the Golgi apparatus. This redistribution is an important step in formation of signaling complexes that recruit and activate TANK-binding kinase 1 (TBK1), leading to phosphorylation and activation of interferon regulatory factor 3 (IRF3).

Activated IRF3 contributes to transcription of type I interferons and interferon-stimulated genes, establishing an immune response to cytosolic DNA. Through this mechanism, Endoplasmic Reticulum Interferon Stimulator participates in host defense against pathogens while also responding to endogenous DNA released or misplaced during cellular stress and genomic instability. STING1 signaling consequently intersects with research into infection, inflammation, autoimmunity, cellular damage, and innate immune surveillance.

STING1 is also studied extensively in tumor immunology. Detection of tumor-derived DNA through the cGAS-STING pathway can promote inflammatory signaling and immune recognition, while altered pathway activity may influence interactions between malignant cells and the immune system. The diverse biological consequences of STING activation have made regulation of the pathway an important area of both basic and translational research.

Clone STING1/8187R is a recombinant monoclonal reagent for investigating this innate immune signaling protein. NSJ

Bioreagents offers the ERIS Antibody for research into STING1 biology, cytosolic DNA sensing, interferon regulation, and associated immune signaling mechanisms. An ERIS Antibody provides a clone-defined approach for studying the endoplasmic reticulum-associated STING1 signaling protein.

For a polyclonal antibody with broader validation across the cGAS-STING signaling pathway, see our STING1 Antibody / cGAS-STING Pathway Antibody page.

Application Notes

Optimal dilution of the ERIS Antibody STING1/8187R / Endoplasmic Reticulum Interferon Stimulator Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 190-290) from the human protein was used as the immunogen for the ERIS antibody.

Storage

Aliquot the STING1/ERIS antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ERIS antibody, Endoplasmic reticulum interferon stimulator antibody, STING1 antibody, STING antibody, TMEM173 antibody, Stimulator of interferon genes antibody, MITA antibody, MPYS antibody

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