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ST2 Antibody

Catalog # ASC10259

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P14719
Other Accession	BAA02854, 286101
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	64801
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ST2 antibody can be used for the detection of ST2 by Western blot at 1 μg/mL. Antibody can also be used for immunohistochemistry starting at 2 μg/mL. For immunofluorescence start at 20 μg/mL.

Additional Information

Gene ID	17082
Other Names	ST2 Antibody: T1, St2, DER4, Ly84, ST2L, Fit-1, T1/ST2, St2-rs1, Ste2, Interleukin-1 receptor-like 1, Lymphocyte antigen 84, interleukin 1 receptor-like 1
Target/Specificity	Il1rl1;
Reconstitution & Storage	ST2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ST2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Il1rl1
Synonyms	Ly84, St2, Ste2
Function	Receptor for interleukin-33 (IL-33) which plays crucial roles in innate and adaptive immunity, contributing to tissue homeostasis and responses to environmental stresses together with coreceptor IL1RAP (PubMed:17675517, PubMed:18450470, PubMed:22660580, PubMed:29045903). Its stimulation recruits MYD88, IRAK1, IRAK4, and TRAF6, followed by phosphorylation of MAPK3/ERK1 and/or MAPK1/ERK2, MAPK14, and MAPK8 (By similarity).

	Possibly involved in helper T-cell function (By similarity). Upon tissue injury, induces UCP2-dependent mitochondrial rewiring that attenuates the generation of reactive oxygen species and preserves the integrity of Krebs cycle required for persistent production of itaconate and subsequent GATA3-dependent differentiation of inflammation-resolving alternatively activated macrophages (PubMed:34644537).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Predominantly expressed in hematopoietic tissues, and in macrophage, erythroid, epithelial and fibroblast cell lines Isoform A is expressed in brain astrocytes and microglia. Isoform B is expressed in brain endothelial cells.

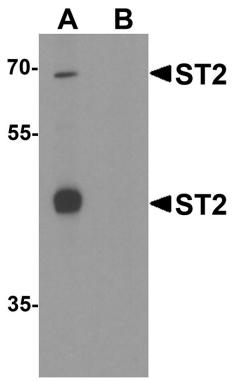
Background

ST2 Antibody: ST2 is a member of a superfamily containing the interleukin-1 receptor and the Toll-like receptors (TLRs). The TLRs are signaling molecules that recognize different microbial products during infection and serve as an important link between the innate and adaptive immune responses. ST2 was originally identified as a protein whose production was stimulated by various proliferation-inducing agents such as PDGF and FGF. More recently, it has been shown to negatively regulate IL-1 receptor and Toll-like receptor (TLR) 4 signaling and to maintain endotoxin tolerance. It has been suggested that the inhibition of TLR4 signaling occurs through the association and sequestering of TLR adaptor molecules such as MyD88 and TIRAP.

References

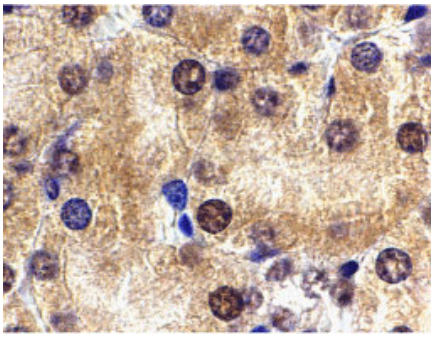
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Sweet MJ, Leung BP, Kang D, et al. A novel pathway regulating lipopolysaccharide-induced shock by ST2/T1 via inhibition of Toll-like receptor 4 expression. J. Immunol. 2001; 166:6633-9.

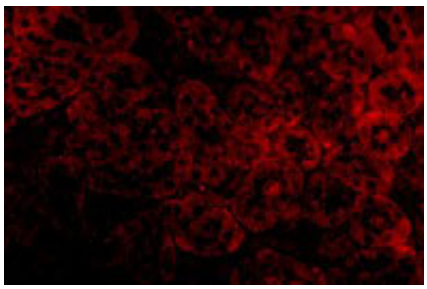
Images



Western blot analysis of ST2 in 293 cell lysate with ST2 antibody at 1 &#956g/ml in (A) the absence and (B) the presence of blocking peptide.

Immunohistochemistry of ST2 in mouse kidney tissue with ST2 antibody at 2 µg/mL.





Immunofluorescence of ST2 in Mouse Kidney cells with ST2 antibody at 20 µg/mL.

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