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ST2 Antibody
Catalog # ASC10259

Specification

ST2 Antibody - Product Information

Application	**WB**
Primary Accession	P14719
Other Accession	BAA02854, 17082
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
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 5 µg/mL. For immunofluorescence start at 5 µg/mL.**

ST2 Antibody - 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
ST2 antibody was raised against a synthetic peptide corresponding to 16 amino acids at the amino-terminus of mouse ST2.

This peptide is common to all three known ST2 isoforms.

The immunogen is located within amino acids 40 - 90 of ST2.

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.

ST2 Antibody - 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:<a href="http://www.uniprot.org/citations/18450470"

target="_blank">18450470, PubMed:17675517, PubMed:29045903, PubMed:22660580). 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

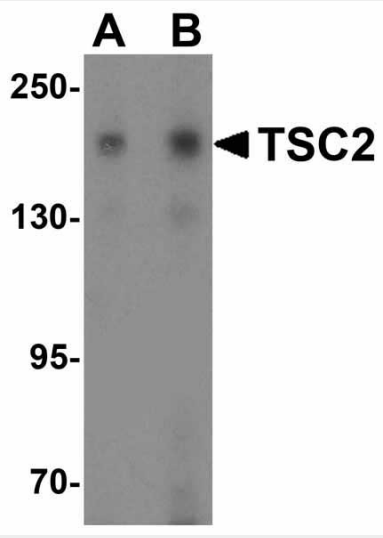
Tissue Location
Predominantly expressed in hematopoietic tissues, and in macrophage, erythroid, epithelial and fibroblast cell lines Isoform A is expressed in brain astrocytes and microglia. Isoform B is expressed in brain endothelial cells.

ST2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ST2 Antibody - Images



Western blot analysis of TSC2 in Jurkat cell lysate with TSC2 antibody at (A) 1 and (B) 2 µg/mL..

ST2 Antibody - 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.

ST2 Antibody - References

Takeda K, Kaisho T, and Akira S. Toll-like receptors. Annu. Rev. Immunol. 2003; 21:335-76.
Janeway CA Jr. and Medzhitov R. Innate immune recognition. Annu. Rev. Immunol. 2002; 20:197-216.
Lanahan A, Williams JB, Sanders LK, et al. Growth factor-induced delayed early response genes. Mol Cell Biol. 1992; 12:3919-29.
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.