

# ST2 (D14L): sc-74297

## BACKGROUND

The orphan receptor ST2/T1 is a member of the IL-1R family, although it does not bind IL-1 $\alpha$ , IL-1 $\beta$  or IL-1R antagonist, and it is preferentially expressed on the surface of T helper cell type 2 (Th2) cells, but not Th1 cells. The gene encoding human ST2 maps to chromosome 2q11.2 and its transcription is controlled by two distinct promoters, an upstream promoter, which directs transcription in hematopoietic cells, and a downstream promoter, which directs transcription in fibroblasts. ST2 is also alternatively spliced to produce three variants: the secreted soluble form (ST2), which is expressed in fibroblasts; the membrane-bound form (ST2L), which is expressed in hematopoietic cells; and ST2V, which is localized on the plasma membrane and is expressed in the stomach, small intestine and colon. ST2 has immunoregulatory properties and, therefore, may have therapeutic potential as an anti-inflammatory agent.

## REFERENCES

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- Tominaga, S., et al. 1996. Assignment of the human ST2 gene to chromosome 2 at q11.2. *Hum. Genet.* 97: 561-563.
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- Gayle, M.A., et al. 1996. Cloning of a putative ligand for the T1/ST2 receptor. *J. Biol. Chem.* 271: 5784-5789.
- Meisel, C., et al. 2001. Regulation and function of T1/ST2 expression on CD4<sup>+</sup> T cells: induction of type 2 cytokine production by T1/ST2 cross-linking. *J. Immunol.* 166: 3143-3150.
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- Kuroiwa, K., et al. 2001. Identification of human ST2 protein in the sera of patients with autoimmune diseases. *Biochem. Biophys. Res. Commun.* 284: 1104-1108.
- Tago, K., et al. 2001. Tissue distribution and subcellular localization of a variant form of the human ST2 gene product, ST2V. *Biochem. Biophys. Res. Commun.* 285: 1377-1383.

## CHROMOSOMAL LOCATION

Genetic locus: IL1RL1 (human) mapping to 2q12.1.

## SOURCE

ST2 (D14L) is a mouse monoclonal antibody raised against an extracellular domain of ST2 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer. Also available azide-free for neutralization, sc-74297 L, 100  $\mu$ g/0.1 ml.

## APPLICATIONS

ST2 (D14L) is recommended for detection of ST2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for ST2 siRNA (h): sc-40035, ST2 shRNA Plasmid (h): sc-40035-SH and ST2 shRNA (h) Lentiviral Particles: sc-40035-V.

Molecular Weight of ST2: 63 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## SELECT PRODUCT CITATIONS

- Wang, S., et al. 2019. Upregulation of the IL-33/ST2 pathway in dry eye. *Mol. Vis.* 25: 583-592.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.