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Product datasheet for AM26440AF-N

ST2 (IL1RL1) Mouse Monoclonal Antibody [Clone ID: FB9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	FB9
Applications:	FC
Recommended Dilution:	Flow cytometry: 10 µg/ml (final concentration). For details see protocol below. It is rteported that the antibody works in Western blot and Immunoprecipitation (ref.3) and In ELISA (ref.2).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Secreted form of ST2 protein which was purified from culture supernatant of COS7 transfectant cells
Specificity:	This antibody reacts with ST2.
Formulation:	PBS containing 50% glycerol, pH 7.2. Contains no preservatives. State: Azide Free State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Protein A agarose
Conjugation:	Unconjugated
Storage:	Store (in aliquots) at -20 °C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	interleukin 1 receptor like 1
Database Link:	Entrez Gene 9173 Human Q01638

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Background:

The ST2 gene, also known as T1, Fit1, or DER4, was originally identified as a responsive gene that was highly induced by stimulation of various proliferation-inducing agents including serum, PDGF (platelet-derived growth factor), FGF (fibroblast growth factor), or lysophosphatidic acid in murine fibroblasts. Three distinct forms of gene products have been reported and named ST2, ST2V, and ST2L. ST2 is a soluble secreted form of a 37 kDa protein, which lacks an intracellular domain, whereas ST2L is a transmembrane form of a 62 kDa protein (the glycosylated forms of ST2 and ST2L are about 57 and 80 kDa, respectively). This ST2L protein is very similar to IL-1R (interleukin-1 receptor) type I and II in structure, thus it is considered a member of the IL-1R family. ST2V, which is another novel variant form of human ST2, has been identified recently. ST2 proteins are expressed in a several types of human cells, including hematopoietic cells in various stages of differentiation, a population of the peripheral blood mononuclear cells from healthy individuals, glioblastoma and astrocytoma cell lines, and colon cancer cells in addition to fibroblast cell lines. Thus ST2 proteins are considered to have some roles in regulating cell growth or proliferation. On the other hand, either definitive functions of ST2 proteins or their ligand molecule(s) which bind to ST2 proteins have remained unclear, though it has been reported that IL-1a, ß, and RA (receptor antagonist) do not bind to ST2 proteins in spite of their structural similarity to IL-1R. This indicates that the ST2L protein is functionally independent from IL-1R. Furthermore, several studies have shown that ST2L is expressed on the cell surface of Th2 cells but not on Th1 cells, indicating the possibility that the ST2L protein participates not only in the regulation of cell growth or proliferation, but also in the immune system including differentiation of T cells or immunological response via helper T cells. From these observations, ST2 proteins are considered to be one of the important proteins that participate in various physiological phenomenon, thus further analysis is required to understand its physiological functions.

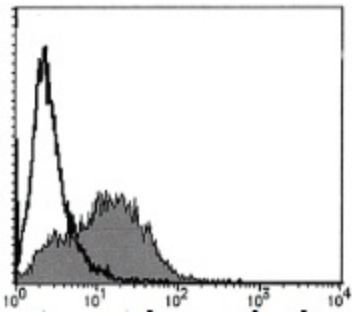
Synonyms:

Interleukin-1 receptor-like 1, DER4, FIT-1, MGC32623

Note: This product was originally produced by MBL International.

Protocol:
Flow cytometric analysis for floating cells
We usually use Fisher tubes or equivalents as reaction tubes for all steps described below.
1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% NaN3].
2) Resuspend the cells with washing buffer (5x10e6 cells/mL).
3) Add 50 µL of the cell suspension into each tube, and centrifuge at 500 x g for 1 minute at room temperature (20~25oC). Remove supernatant by careful aspiration.
4) Add 10 µL of normal goat serum containing 1 mg/mL normal human IgG and 0.1% NaN3 to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
5) Add 40 µL of the primary antibody at the concentration of as suggested in the APPLICATIONS diluted in the washing buffer. Mix well and incubate for 30 minutes at room temperature.
6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
7) Add 30 µL of 1:100 FITC conjugated anti-mouse IgG diluted with the washing buffer. Mix well and incubate for 15 minutes at room temperature.
8) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
9) Resuspend the cells with 500 µL of the washing buffer and analyze by a flow cytometer.
(Positive control for Flow cytometry; transfectant)

Product images:



Flow cytometric analysis of human ST2 expression in transfectant. Open histogram indicates the reaction of isotypic control to the cells. Shaded histogram indicates the reaction of AM26440AF-N to the cells.