

ST2/IL-33R (H2) rabbit mAb

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#2477

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For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications | Detection | Clonality | Isotype |
|----------------|-----------------|------------|-------------|
| Flow Cytometry | Anti-Rabbit IgG | Monoclonal | Rabbit IgGk |

Format: Unconjugated

Cross Reactivity: Predicted to work with mouse, rat and other homologues.

Formulation: 1X PBS, 0.09% NaN₃, 0.2% BSA

Preparation: Protein A+G

Reactivity: Human

Recommended

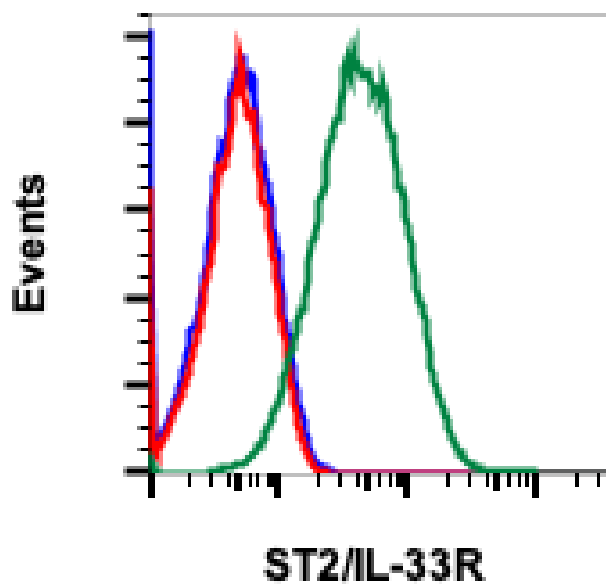
Usage: For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: human recombinant ST2-Fc

Description: Suppression of tumorigenicity (ST)2 is an interleukin (IL)-1 receptor family member and due to alternative splicing and 3' processing at RNA level, ST2 is expressed as soluble (sST2) as well as trans-membrane (ST2L) isoforms (1). Originally identified in 1989 as an orphan receptor, the ST2 ligand was identified to be IL-33 in 2005 (2). IL-33 is mechanically induced in cardiac fibroblasts and antagonizes hypertrophic stimuli. Analysis of rat neonatal cardiac fibroblasts and cardiomyocytes indicate that gene expression of IL-33 and sST2 was more than 5-fold greater in cardiac fibroblasts than in cardiomyocytes (3,4). Expression sST2 is markedly increased as early as 1 hr following mechanical strain in cultured myocytes and in patients with acute myocardial infarction (5). In addition, IL-33 behaves as a chromatin-related nuclear interleukin, and act as transcriptional repressor when overexpressed in cells (4). IL-33 production may be augmented by inflammation (6). IL-33 has been demonstrated to participate in several forms of inflammatory diseases and to influence tumorigenesis. IL-33 was identified to be pro-cancer mediator, since the activation pathway of IL-33/ST2 could promote metastasis (7).

References:

1. Schmitz J, et al., (2005) Immunity, 23: 479-490.
2. Dinarello CA, (2005), Immunity, 23: 461-462.
3. Weinberg EO, et al., (2003), Circulation, 107: 721-726
4. Sanada S. et al., (2007), J Clin Invest, 117: 1538-1549.
5. Shimpo M., et al., (2004), Circulation, 109: 2186-2190.
6. Kim S., et al., (2011), Ann N.Y. Acad. Sci., 1217:191-206.
7. Afferni C., et al., (2018), Front Immunol, 9: 2601. doi:10.3389/fimmu.2018.02601



Flow cytometric analysis of HEK-Blue cells unstained cells (blue), stained with secondary antibody (red) or stained using ST2/IL-33R antibody (green), ST2IL33R-H2 at 1.0 ug/mL. Cat# 2477.