Anti-ST2 Antibody [PSH01-68]

HA601170

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 63.4 kDa
Clone number:	PSH01-68

Description: Receptor for interleukin-33 (IL-33); signaling requires association of the coreceptor IL1RAP. Its stimulation recruits MYD88, IRAK1, IRAK4, and TRAF6, followed by phosphorylation of MAPK3/ERK1 and/or MAPK1/ERK2, MAPK14, and MAPK8. Possibly involved in helper T-cell function (Probable). 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.

Immunogen: Recombinant protein within human ST2 aa 19-328 (Extracellular).

Positive control: HeLa transfected with FLAG-tagged ST2 cell lysate, HeLa overexpress with ST2.

Subcellular location: Cell membrane, Membrane, Secreted.

Database links: SwissProt: Q01638 Human

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:100
FC	1:1,000

Storage Buffer: PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

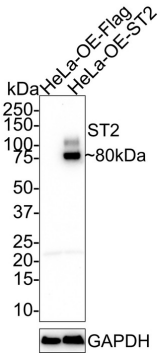

Fig1: Western blot analysis of ST2 on different lysates with Mouse anti-ST2 antibody (HA601170) at 1/1,000 dilution.

Lane 1: HeLa transfected with FLAG-tagged empty control cell lysate
Lane 2: HeLa transfected with FLAG-tagged ST2 cell lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 63 kDa
Observed band size: 80 kDa

Exposure time: 5 minutes 10 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601170) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

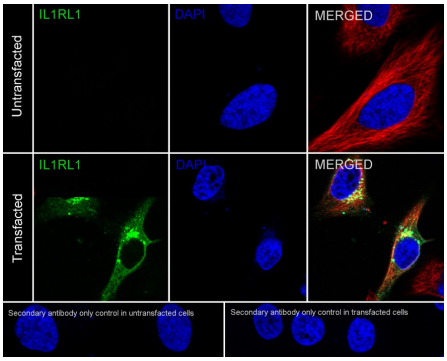

Fig2: Immunocytochemistry analysis of HeLa overexpress with or without ST2 cells labeling ST2 with Mouse anti-ST2 antibody (HA601170) at 1/500 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-ST2 antibody (HA601170) at 1/500 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

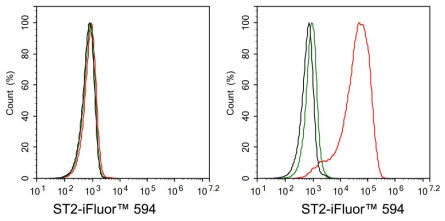

Fig3: Flow cytometric analysis of HeLa overexpress with or without ST2 cells labeling ST2.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA601170, 1/1,000) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4℃ for 30 minutes, the cells were stained with a iFluor™ 594 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1126) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Schmitz J., Owyang A., Oldham E., Song Y., Murphy E., McClanahan T.K., Zurawski G., Moshrefi M., Qin J., Li X., Gorman D.M., Bazan J.F., Kastelein R.A. IL-33, an interleukin-1-like cytokine that signals via the IL-1 receptor-related protein ST 2 and induces T helper type 2-associated cytokines. Immunity 23:479-490 (2005)