

## PE anti-mouse IL-33R $\alpha$ (IL1RL1, ST2) Antibody

<b>Catalog# / Size</b>	145303 / 25 $\mu$ g 145304 / 100 $\mu$ g
<b>Clone</b>	DIH9
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	T1/ST2, ST2L, IL-1R1, T1, DER4, IL1R1
<b>Isotype</b>	Rat IgG2a, $\kappa$
<b>Description</b>	<p>IL-33R<math>\alpha</math>, also known as ST2 or IL-1RL1, is a member of the Toll/IL-1 receptor family. It binds IL-33 and is structurally similar to IL-1R1. Two forms of the protein exist - a soluble form known as ST2 and a membrane anchored form known as ST2L. The membrane form is expressed by Th2 cells and bone marrow derived mast cells, whereas the soluble form is expressed by serum-stimulated fibroblasts.</p> <p>Blocking with anti-ST2 antibodies has been shown to alleviate experimental arthritis and airway inflammation. The IL-33-ST2 axis has been reported to be important across a range of diseases including asthma, allergies, and cardiac disease.</p>

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	IL-33R $\alpha$ -hFc $\gamma$ 1 fusion protein.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is $\leq 1.0$ $\mu$ g per million cells in 100 $\mu$ l volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application References</b>	1. Hashiguchi M, <i>et al.</i> 2014. <i>Eur. J. Immunology</i> . (FC) <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Furuhashi K, <i>et al.</i> 2017. <i>Immunology</i>. 151:227. <a href="#">PubMed</a></li> <li>2. Karagiannis F, <i>et al.</i> 2020. <i>Immunity</i>. 52(4):620-634. <a href="#">PubMed</a></li> <li>3. Wang L, <i>et al.</i> 2019. <i>Cell Rep</i>. 29:1848. <a href="#">PubMed</a></li> <li>4. Shani O, <i>et al.</i> 2020. <i>Cancer Res</i>. 80:5317. <a href="#">PubMed</a></li> <li>5. Delacher M, <i>et al.</i> 2021. <i>Immunity</i>. 54(4):702-720.e17. <a href="#">PubMed</a></li> <li>6. She L, <i>et al.</i> 2021. <i>JCI Insight</i>. 6:e143509. <a href="#">PubMed</a></li> <li>7. Wu G, <i>et al.</i> 2020. <i>Br J Pharmacol</i>. 177:5063. <a href="#">PubMed</a></li> <li>8. Wiesner D, <i>et al.</i> 2015. <i>PLoS Pathog</i>. 11:1004701. <a href="#">PubMed</a></li> <li>9. He J, <i>et al.</i> 2020. <i>Cell Reports</i>. 29(9):2718-2730.e6. <a href="#">PubMed</a></li> </ol>

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12. Klein O, *et al.* 2019. *J Allergy Clin Immunol.* 144:1074. [PubMed](#)
13. Zhang M, *et al.* 2017. *Mol Med Rep.* 15:4291. [PubMed](#)
14. Hirota K *et al.* 2018. *Immunity.* 48(6):1220-1232 . [PubMed](#)
15. Kastenschmidt JM, *et al.* 2021. *Cell Rep.* 35:108997. [PubMed](#)
16. Dutton EE, *et al.* 2018. *Wellcome Open Res.* 2:117. [PubMed](#)

**RRID** AB\_2561914 (BioLegend Cat. No. 145303)  
 AB\_2561915 (BioLegend Cat. No. 145304)

## Antigen Details

<b>Structure</b>	63 kD, IL-1 receptor family member, single pass type I membrane protein
<b>Distribution</b>	Mast cells, Th2 cells, and fibroblasts
<b>Function</b>	Following interaction with IL-33, it recruits MyD88, Irak1, Irak4 and Traf6 followed by phosphorylation of the MAP/ERK pathway.
<b>Interaction</b>	Interacts with MyD88, Irak1, Irak4 and Traf6
<b>Ligand/Receptor</b>	IL-33
<b>Cell Type</b>	Fibroblasts, Mast cells, Th2
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	Cytokine/Chemokine Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Yanagisawa K, <i>et al.</i> 1993. <i>FEBS Lett.</i> 318:83.</li> <li>2. Schmitt E, <i>et al.</i> 1990. <i>Cytokine</i> 6:407.</li> <li>3. Yanagisawa K, <i>et al.</i> 1992. <i>FEBS Lett.</i> 302:51.</li> <li>4. Takagi T, <i>et al.</i> 1993. <i>Biochim Biophys Acta.</i> 1178:194.</li> </ol>
<b>Gene ID</b>	<a href="#">17082</a>

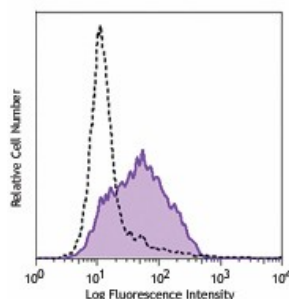
## Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), PE anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), APC anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), PerCP/Cyanine5.5 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), Brilliant Violet 421™ anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), Biotin anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), PE/Dazzle™ 594 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), PE/Cyanine7 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), TotalSeq™-A0837 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), TotalSeq™-C0837 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), Brilliant Violet 785™ anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), Brilliant Violet 605™ anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), APC/Fire™ 750 anti-mouse IL-33R $\alpha$  (IL1RL1, ST2), Brilliant Violet 711™ anti-mouse IL-33R $\alpha$  (IL1RL1, ST2)

## Product Data



Mouse Th2 clone D10.G4.1 was stained with anti-mouse IL-33R $\alpha$ /ST2 (clone DIH9) PE (filled histogram) or rat IgG1,  $\kappa$  PE isotype control (open histogram).

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