

Brilliant Violet 421™ anti-mouse IL-33R α (IL1RL1, ST2) Antibody

Catalog# / Size	145309 / 50 μ g
Clone	DIH9
Regulatory Status	RUO
Other Names	T1/ST2, ST2L, IL-1R1, T1, DER4, IL1R1
Isotype	Rat IgG2a, κ
Description	IL-33R α , 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.

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.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	IL-33R α -hFc γ 1 fusion protein.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 μ g per million cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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Excitation Laser	Violet Laser (405 nm)
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Application References	1. Hashiguchi M, <i>et al.</i> 2014. <i>Eur. J. Immunology</i> . (FC) PubMed
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(PubMed link indicates BioLegend citation)

Product Citations

1. Petrova T, *et al.* 2020. *Sci Rep.* 10:3479. [PubMed](#)
2. Delacher M, *et al.* 2021. *Immunity.* 54(4):702-720.e17. [PubMed](#)
3. McCarthy PC, *et al.* 2019. *Immunol Cell Biol.* 97:54. [PubMed](#)
4. Morimoto Y, *et al.* 2018. *Immunity.* 49:134. [PubMed](#)
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6. Bajaña S, *et al.* 2022. *iScience.* 25:103732. [PubMed](#)
7. Fujimoto M, *et al.* 2022. *Nat Commun.* 13:5408. [PubMed](#)
8. Chetty A, *et al.* 2021. *Cell Host Microbe.* 29:579. [PubMed](#)
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RRID

AB_2565634 (BioLegend Cat. No. 145309)

Antigen Details

Structure	63 kD, IL-1 receptor family member, single pass type I membrane protein
Distribution	Mast cells, Th2 cells, and fibroblasts
Function	Following interaction with IL-33, it recruits MyD88, Irak1, Irak4 and Traf6 followed by phosphorylation of the MAP/ERK pathway.
Interaction	Interacts with MyD88, Irak1, Irak4 and Traf6
Ligand/Receptor	IL-33
Cell Type	Fibroblasts, Mast cells, Th2
Biology Area	Immunology, Innate Immunity
Molecular Family	Cytokine/Chemokine Receptors
Antigen References	<ol style="list-style-type: none">1. Yanagisawa K, <i>et al.</i> 1993. <i>FEBS Lett.</i> 318:83.2. Schmitt E, <i>et al.</i> 1990. <i>Cytokine</i> 6:407.3. Yanagisawa K, <i>et al.</i> 1992. <i>FEBS Lett.</i> 302:51.4. Takagi T, <i>et al.</i> 1993. <i>Biochim Biophys Acta.</i> 1178:194.
Gene ID	17082

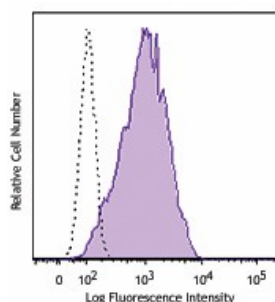
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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

Product Data



Mouse Th2 clone D10.G4.1 was stained with anti-mouse IL-33R α /ST2 (clone DIH9) Brilliant Violet 421™ (filled histogram) or rat IgG2a, κ Brilliant Violet 421™ isotype control (open histogram).

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