

## Brilliant Violet 605™ anti-human CD125 (IL-5R $\alpha$ ) Antibody

<b>Catalog# / Size</b>	384713 / 25 tests 384714 / 100 tests
<b>Clone</b>	S20015E
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	IL5RA, IL5R, CDw125, HSIL5R3
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD125, also known as IL5 receptor $\alpha$ -chain, is a 60 kD type I transmembrane protein that binds IL-5 and associates in a heterodimer with the signal-transducing $\beta$ subunit CD131 to form the IL-5 receptor. The affinity of CD125 for IL-5 is increased when is associated with CD131. The cytoplasmic region of CD125 activates the JAK2/STAT5 pathway and the kinase Btk. CD125 is expressed by eosinophils, basophils, mast cells, B1 cells and a subset of resting B2 cells and have a central role in the differentiation, activation and survival of these cells. Due to the restricted expression of this molecule, it is considered a potential therapeutic target for allergic inflammatory conditions.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Mouse IL-5R $\alpha$ transfected cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)
<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 5 $\mu$ L per million cells in 100 $\mu$ L staining volume or 5 $\mu$ L per 100 $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

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

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<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>RRID</b>	AB_3699037 (BioLegend Cat. No. 384713) AB_3699037 (BioLegend Cat. No. 384714)

## Antigen Details

<b>Structure</b>	Type I transmembrane protein, 60 kD
<b>Distribution</b>	Eosinophils, basophils, mast cells, B1 cells, subset of resting B2 cells
<b>Function</b>	Role in eosinophils and basophils differentiation, activation and survival
<b>Interaction</b>	JAK2/STAT, Btk, SOX4
<b>Ligand/Receptor</b>	IL-5
<b>Cell Type</b>	B cells, Basophils, Eosinophils
<b>Biology Area</b>	Cell Biology, Cell Proliferation and Viability, Immunology
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors

### Antigen References

1. Buchheit KM, *et al.* 2020. *J Allergy Clin Immunol.* 145:1574-1584.
2. Lin X, *et al.* 2020. *Inflammation.* 43:1797-1805.
3. Gorski SA, *et al.* 2019. *PLoS One.* 14:e0221113.
4. Varricchi G, *et al.* 2016. *Curr Opin Allergy Clin Immunol.* 16:186-200.
5. Beekman JM. *et al.* 2009. *Blood.* 114:3917-27.
6. Lei JT. *et al.* 2008. *J Leukoc Biol.* 84:499-509.

**Gene ID** [3568](#)

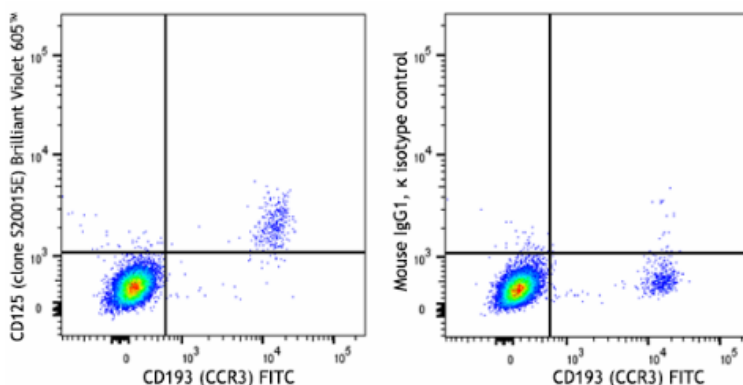
## Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-human CD125 (IL-5R $\alpha$ ), PE anti-human CD125 (IL-5R $\alpha$ ), TotalSeq™-C1287 anti-human CD125 (IL-5R $\alpha$ ), TotalSeq™-A1287 anti-human CD125 (IL-5R $\alpha$ ) Antibody, Brilliant Violet 421™ anti-human CD125 (IL-5R $\alpha$ ), Brilliant Violet 605™ anti-human CD125 (IL-5R $\alpha$ )

## Product Data



Human peripheral blood lymphocytes were stained with anti-human CD193 (CCR3) (clone 5E8) FITC and anti-human CD125 (IL-5R $\alpha$ ) (clone S20015E) Brilliant Violet 605™ (left) or mouse IgG1,  $\kappa$  Brilliant Violet 605™ isotype control (right).

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