

PE anti-human FLT3L Antibody

Catalog# / Size	345603 / 25 tests 345604 / 100 tests
Clone	W19353A
Regulatory Status	RUO
Other Names	FLT3LG, Fms related receptor tyrosine kinase 3 ligand, Fms-like tyrosine kinase 3 ligand, Flt3 Ligand, SL cytokine
Isotype	Rat IgG2a, κ
Description	<p>Human FLT3L was initially cloned from a T cell cDNA library using a mouse probe; the human and mouse FLT3L proteins share 72% amino acid identity. FLT3L is synthesized as a type I membrane-bound protein, which is cleaved to become a soluble growth factor. An additional soluble form of FLT3L has been reported as a result of alternative splicing. TACE (ADAM17) plays a key role in the ectodomain shedding of FLT3L. In fact, serum FLT3L levels are decreased in TACE deficient mice.</p>

FLT3L is crucial for the development of the two main subsets of dendritic cells (DCs): conventional DCs (cDCs) and plasmacytoid DCs (pDCs). Changes in the development or number of DCs can alter T cell immunity and tolerance. A feedback loop between DCs and Tregs is regulated via FLT3L, as it has been shown that the increase in Tregs induced by DC expansion delays the onset of type 1 autoimmune diabetes and IBD in mice. FLT3L also facilitates formation of Tregs and thus, reduces severity of antigen-induced arthritis in mice. FLT3L deficiency in humans has been shown to result in bone marrow hypoplasia, with low levels of hematopoietic progenitors (particularly myeloid and B cell progenitors). FLT3L is elevated in the synovial fluid of rheumatoid arthritis (RA) patients and FLT3L has been included in panels of preclinical markers for predicting the possible development of RA. The innate sensing pathway triggered by Plasmodium infection regulates DC homeostasis and adaptive immunity via FLT3L release. High levels of FLT3L and increased DCs have been detected in humans and mice during Plasmodium infection.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Human FLT3L transfected cell line
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 PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)

Application Notes Surface staining in fixed cells may result in lower signal compared to unfixed cells.

RRID AB_3675067 (BioLegend Cat. No. 345603)
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Antigen Details

Structure	P49771
Distribution	Hematopoietic precursors, stromal bone marrow cells, T Lymphocytes
Function	FLT3L stimulates the proliferation of hematopoietic precursors and development of B cells and dendritic cells. Additionally, FLT3L is also required for the development of monocytes in humans and NK cells in mice. FLT3L regulates the homeostatic feedback loop between DCs and Tregs.
Interaction	Hematopoietic stem progenitor cells, progenitor cells, DCs, monocytes, B cells, and NK cells
Ligand/Receptor	Fms related receptor tyrosine kinase 3, FLT3, CD135
Cell Type	Embryonic Stem Cells, Hematopoietic stem and progenitors
Biology Area	Stem Cells
Molecular Family	Cytokines/Chemokines, Growth Factors

Antigen References

1. Hannum C, *et al.* 1994. *Nature*. 368:643-8.
2. Waskow C. 2008. *Nat Immunol*. 9:676-83.
3. Darrasse-Jèse G, *et al.* 2009. *J Exp Med*. 206:1853-62.
4. Horiuchi K, *et al.* 2009. *J Immunol*. 182:7408-14.
5. Svensson MN, *et al.* 2013. *PLoS One*. 8:e54884.
6. Guermonprez P, *et al.* 2013. *Nat Med*. 19:730-8.
7. Chklovskaja E, *et al.* 2001. *Blood*. 97:1027-34.
8. Momenilandi M, *et al.* 2024. *Cell*. 187:2817.

Gene ID [2323](#)

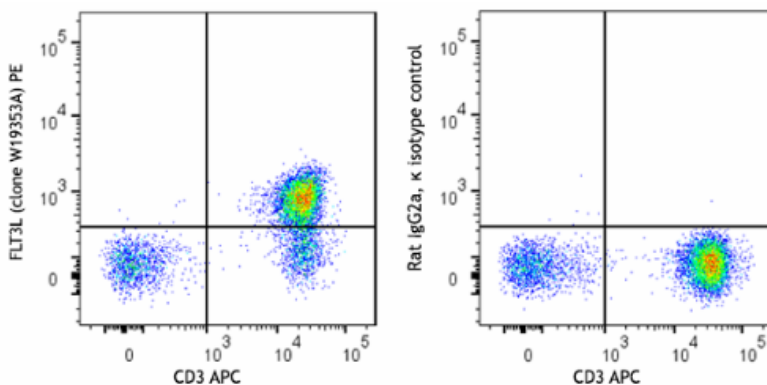
Related Protocols

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

Other Formats

Purified anti-human FLT3L, PE anti-human FLT3L

Product Data



Recombinant human IL-7 (Cat. No. 581902) stimulated (15 ng/mL for 3 days) human peripheral blood mononuclear cells were stained with anti-human CD3 (clone UCHT1) APC and anti-human FLT3L (clone W19353A) PE or rat IgG2a, κ PE isotype control (right).

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