

PE anti-mouse CD135 Antibody

Catalog# / Size	135305 / 50 µg 135306 / 200 µg
Clone	A2F10
Regulatory Status	RUO
Other Names	Flk-2, Flt3, Ly-72
Isotype	Rat IgG2a, κ
Description	CD135, also known as Flk-2, Flt3, and Ly-72, is a type III tyrosine kinase receptor. It is expressed on early B lymphoid lineage cells in bone marrow, on primitive myeloid progenitors within the BM CD34+ cell population. Ligation of Flk-2 with Flt3 ligand regulates the growth of hematopoietic stem cells and promotes the survival of primitive hematopoietic progenitor cells with myeloid as well as B lymphoid potential. It was reported that the receptor tyrosine kinase Flt3 is required for dendritic cell development. Combined signaling through interleukin-7 receptors and Flt3 selectively promotes B-cell commitment and differentiation from uncommitted murine bone marrow progenitor cells.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse Flt3 transfected cell line
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE 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 ≤ 1.0 µg per 10 ⁶ cells in 100 µl volume. 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 References	<ol style="list-style-type: none"> 1. Sergejeva S, <i>et al.</i> 2004. <i>Blood</i> 103:1270. 2. Auffray C, <i>et al.</i> 2009. <i>J. Exp. Med.</i> 206:595. 3. Chiba H, <i>et al.</i> 2013. <i>Am J Physiol Cell Physiol.</i> 305:693. PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> 1. Hou X, <i>et al.</i> 2020. <i>Cell Reports.</i> 28(1):172-189.e7.. PubMed 2. Turecamo SE, <i>et al.</i> 2018. <i>Matrix Biol.</i> 67:01:00. PubMed 3. Delbridge AR, <i>et al.</i> 2017. <i>Cell Death Dis.</i> 8:e2914. PubMed 4. Lawson H, <i>et al.</i> 2021. <i>Stem Cell Reports.</i> 16:2784. PubMed 5. Domingues AF, <i>et al.</i> 2020. <i>Elife.</i> 9:e51754. PubMed 6. Schloss MJ, <i>et al.</i> 2022. <i>Nat Immunol.</i> 23:605. PubMed 7. Hu X, <i>et al.</i> 2016. <i>Nat Commun.</i> 7:13095. PubMed 8. Riether C, <i>et al.</i> 2021. <i>Cell Reports.</i> 34(4):108663. PubMed 9. Dave K <i>et al.</i> 2017. <i>eLife.</i> 6 pii: e23382. PubMed 10. Dey A <i>et al.</i> 2019. <i>The EMBO journal.</i> 38(7) pii: e100293. PubMed

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RRID AB_1877218 (BioLegend Cat. No. 135305)
 AB_1877217 (BioLegend Cat. No. 135306)

Antigen Details

Structure	A 135-150 kD molecule belonging to the tyrosine kinase receptor family.
Distribution	Expressed on early B lymphoid lineage cells in juvenile and adult bone marrow, primitive myeloid progenitors within the BM CD34+ cell population.
Function	Regulate the growth of hematopoietic stem cells and promote the survival of primitive hematopoietic progenitor cells.
Ligand/Receptor	Flk-2/FLT3 ligand
Cell Type	B cells, Hematopoietic stem and progenitors
Biology Area	Immunology
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none"> 1. Waskow C, <i>et al.</i> <i>Nat. Immunol</i>. 9:676 2. Veiby OP, <i>et al.</i> 1996. <i>Blood</i> 88(4):1256 3. Veiby OP, <i>et al.</i> 1996. <i>J. Immunol</i>. 157(7):2953 4. Matthews W, <i>et al.</i> 1991. <i>Cell</i>. 65(7):1143 5. Hannum C, <i>et al.</i> 1994. <i>Nature</i> 368(2):643 6. Ogawa M, <i>et al.</i> 1998. <i>Exp Hematol</i>. 26(6):478
Gene ID	14255

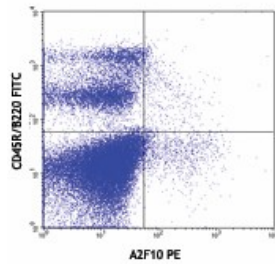
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

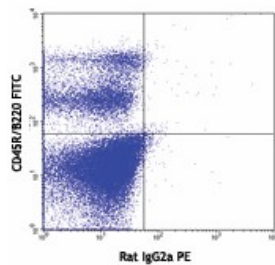
Other Formats

PE anti-mouse CD135, Biotin anti-mouse CD135, APC anti-mouse CD135, PE/Cyanine5 anti-mouse CD135, Brilliant Violet 421™ anti-mouse CD135, TotalSeq™-A0098 anti-mouse CD135, TotalSeq™-B0098 anti-mouse CD135, TotalSeq™-C0098 anti-mouse CD135

Product Data



Bone marrow cells from C57BL/6 mouse stained with A2F10 PE and CD45R/B220 (RA3-6B2) FITC



Bone marrow cells from C57BL/6 mouse stained with rat IgG2a, k PE and CD45R/B220 (RA3-6B2) FITC

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