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OriGene Technologies GmbH

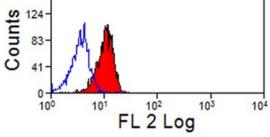
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AM60041RP-N Monoclonal Antibody to SIGLEC5 / SIGLEC14 - PE

Alternate names:	CD170, O15389, Q08ET2, Sialic acid-binding Ig-like lectin 14, Sialic acid-binding Ig- like lectin 5
Quantity:	100 Tests
Background:	Siglec-5 shares an almost identical sequence with Siglec-14 within the first two Ig-like domains, indicating partial gene conversion between these two Siglecs, also evident in other primate species. Siglec-5, also known as CD170, is a sialic-acid-binding Ig-like lectin, and member of the Ig superfamily, expressed by dendritic cells (DCs), activated macrophages, neutrophils, and cells of the monocyte/myeloid lineage. Highly related to the myelomonocytic-derived adhesion molecule CD33 (Siglec-3), Siglec-5 mediates sialic- acid dependent binding to cells, and is as well acting as an inhibitory receptor in the down-regulation of cell activation. Structurally, Siglec-5 contains an immunoreceptor tyrosine-based inhibitor motif (ITIM), which plays a part in the modulation of cellular responses, and when phosphorylated, can bind to the SH2 domain of several SH2-containing phosphatases. Siglec-14 is a putative sialic-acid binding adhesion molecule and predominantly expressed in hematopoietic tissues, which have been shown to associate with the activating adapter protein DAP12.
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10R (for use in human samples), AM03095PU-N
Clone:	1A5
Immunogen:	SIGLEC5-Fc protein, consisting of the full-length extracellular region of human SIGLEC5, fused with the Fc region of human IgG1
Format:	State: Lyophilised purified IgG Purification: Affinity chromatography on Protein G Buffer System: PBS containing 0.09% Sodium azide, 1% BSA and 5% Sucrose Label: PE – R. Phycoerythrin
Applications:	Flow cytometry: Neat, use 10µl to label 10e6 cells in 100µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognises human SIGLEC5 / CD170. Clone 1A5 antibody is one of several SIGLEC5 antibodies which also recognises human SIGLEC14 <i>(Angata, T. et al., 2006)</i> .
Species Reactivity:	Tested: Human Expected from sequence similarity: Chimpanzee <i>(Nguyen, D.H. et al., 2006)</i>)

For research and in vitro use only. Not for diagnostic or therapeutic work. Material Safety Datasheets are available at www.acris-antibodies.com or on request.

	AM60041RP-N: Monoclonal Antibody to SIGLEC5 / SIGLEC14 - PE
Storage:	Prior to and following reconstitution store the antibody at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
General Readings:	 Cornish AL, Freeman S, Forbes G, Ni J, Zhang M, Cepeda M, et al. Characterization of siglec-5, a novel glycoprotein expressed on myeloid cells related to CD33. Blood. 1998 Sep 15;92(6):2123-32. PubMed PMID: 9731071. Avril T, Freeman SD, Attrill H, Clarke RG, Crocker PR. Siglec-5 (CD170) can mediate inhibitory signaling in the absence of immunoreceptor tyrosine-based inhibitory motif phosphorylation. J Biol Chem. 2005 May 20;280(20):19843-51. Epub 2005 Mar 15. PubMed PMID: 15769739. Nguyen DH, Hurtado-Ziola N, Gagneux P, Varki A. Loss of Siglec expression on T lymphocytes during human evolution. Proc Natl Acad Sci U S A. 2006 May 16;103(20):7765-70. Epub 2006 May 8. PubMed PMID: 16682635. Jaroenpool J, Rogers KA, Pattanapanyasat K, Villinger F, Onlamoon N, Crocker PR, et al. Differences in the constitutive and SIV infection induced expression of Siglecs by hematopoietic cells from non-human primates. Cell Immunol. 2007 Nov- Dec;250(1-2):91-104. doi: 10.1016/j.cellimm.2008.01.009. Epub 2008 Mar 10. PubMed PMID: 18331725. Angata T, Hayakawa T, Yamanaka M, Varki A, Nakamura M. Discovery of Siglec-14, a novel sialic acid receptor undergoing concerted evolution with Siglec-5 in primates. FASEB J. 2006 Oct;20(12):1964-73. PubMed PMID: 17012248.
Pictures:	Human peripheral blood monocytes stained with SIGLEC5 / SIGLEC14 antibody CatNo. AM60041RP-N.



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