

Antibodies

Anti-Human CD235ab (Glycophorin A/B) Antibody, Clone HIR2, PE

Mouse monoclonal IgG2b antibody
against human CD235ab (glycophorin
A/B), PE-conjugated

Catalog #60111PE
#60111PE.1

100 µg 0.2 mg/mL
25 µg 0.2 mg/mL



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Product Description

The HIR2 (GA-R2) antibody recognizes an epitope common to the N-terminal region of human CD235a (glycophorin A) and CD235b (glycophorin B), homologous type I sialoglycoproteins of the erythrocyte (red blood cell) membrane that bear the antigenic determinants for the MN and Ss blood groups. CD235ab is expressed on early- and late-stage erythroblasts, mature erythrocytes, and erythroid cell lines such as K562 and HEL, but not on other cell types. CD235a is abundantly expressed whereas CD235b is a relatively minor membrane component. The proteins are believed to provide a large mucin-like surface to erythrocytes that acts to minimize aggregation in the circulation. The HIR2 antibody binds with higher affinity to CD235a than CD235b, and agglutinates untreated erythrocytes.

Target Antigen Name:	CD235ab (Glycophorin A/B)
Alternative Names:	CD235a, CD235ab, CD235b, Glycophorin A, Glycophorin B, GPA, GPB, GYPA, GYPB, MN sialoglycoprotein, PAS-2, PAS-3, Sialoglycoprotein alpha, Sialoglycoprotein delta, SS-active sialoglycoprotein
Gene ID:	2993/2994
Species Reactivity:	Human
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HIR2 (GA-R2)
Isotype:	IgG2b, kappa
Immunogen:	Synthetic peptide corresponding to N-terminal region of human CD235ab
Conjugate:	PE

Applications

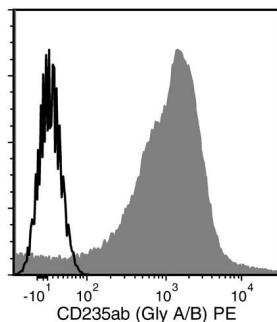
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Glycophorin A Depletion Kit (Catalog #18352).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 0.2 \mu\text{g}$ per 1×10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human whole blood labeled with Anti-Human CD235ab (Glycophorin A/B) Antibody, Clone HIR2, PE (filled histogram) or Mouse IgG2b, kappa Isotype Control Antibody, Clone MPC-11, PE (Catalog #60072PE) (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Corces-Zimmerman MR et al. (2014) Preleukemic mutations in human acute myeloid leukemia affect epigenetic regulators and persist in remission. *Proc Natl Acad Sci USA* 111(7): 2548–53. (FC)
2. Headland SE et al. (2014) Cutting-edge analysis of extracellular microparticles using ImageStream(X) imaging flow cytometry. *Sci Rep* 4: 5237. (FC)
3. Kamat V et al. (2014) MicroRNA screen of human embryonic stem cell differentiation reveals miR-105 as an enhancer of megakaryopoiesis from adult CD34+ cells. *Stem Cells* 32(5): 1337–46. (FC)
4. Manfrini M et al. (2013) Mesenchymal stem cells from patients to assay bone graft substitutes. *J Cell Physiol* 228(6): 1229–37. (FC)
5. Paluru P et al. (2013) The negative impact of wnt signaling on megakaryocyte and primitive erythroid progenitors derived from human embryonic stem cells. *Stem Cell Res* 12(2): 441–51. (FC)
6. Soderblom EJ et al. (2013) Proteomic analysis of ERK1/2-mediated human sickle red blood cell membrane protein phosphorylation. *Clin Proteomics* 10(1): 1. (IP, WB)
7. Gros A et al. (2012) Myeloid cells obtained from the blood but not from the tumor can suppress T-cell proliferation in patients with melanoma. *Clin Cancer Res* 18(19): 5212–23. (FC)
8. MacLean G a. et al. (2012) Altered hematopoiesis in trisomy 21 as revealed through in vitro differentiation of isogenic human pluripotent cells. *Proc Natl Acad Sci USA* 109(43): 17567–72. (FC)
9. Wong S et al. (2010) Establishment of an erythroid cell line from primary CD36+ erythroid progenitor cells. *Exp Hematol* 38(11): 994–1005.e1-2. (FC)
10. Chen Q et al. (2009) Expression of human cytokines dramatically improves reconstitution of specific human-blood lineage cells in humanized mice. *Proc Natl Acad Sci USA* 106(51): 21783–8. (FC)
11. Choi K-D et al. (2009) Hematopoietic and endothelial differentiation of human induced pluripotent stem cells. *Stem Cells* 27(3): 559–67. (FC)
12. Thorogate R et al. (2008) A novel fluorescence-based method in forensic science for the detection of blood in situ. *Forensic Sci Int Genet* 2(4): 363–71. (ICC, IF)

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