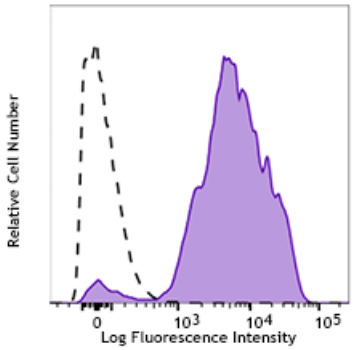
SONY

Product Data Sheet

PE/Dazzle™ 594 anti-human CD11a

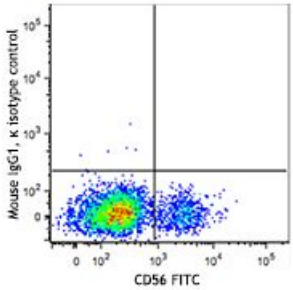
Catalog # / Size:	2106160 / 100 tests 2106155 / 25 tests
Clone:	HI111
Isotype:	Mouse IgG1, κ
Immunogen:	Human PMN cells
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	IV N231
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained with HI111 PE/Dazzle™ 594 (filled histogram) or mouse IgG1, κ PE/Dazzle™ 594 isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
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 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Application Notes:	Clone HI111 epitope maps to the top region of the I domain that is close to the putative ligand-binding site surrounding the MIDAS (metal ion-dependent adhesion site). HI111 is specific for the closed confirmation of the integrin[8]. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections, Western blotting[2], and blocking of cell-cell interaction and inhibition the binding of ICAM-1[4]. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue.



Formalin-fixed paraffin-embedded human breast cancer tissue slices were deparaffinized and rehydrated. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0 M, pH 7.4) at 95°C for 40 minutes, washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the slices were stained with 5 µg/mL anti-EGFR (clone A19002A) Alexa Fluor® 647 (red) at 4°C overnight. Nuclei were counterstained with DAPI (green). The image was captured with a 10X objective.

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Application References:

1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press New York.
2. Leite F, *et al.* 2002. *Infec. Immun.* 70:4336.
3. Jiang Y, *et al.* 2005. *Clin. Hemorheol. Microcircul.* 32:261.
4. BTchard D, *et al.* 2001. *J. Immunol.* 167:3099.
5. Sithu SD, *et al.* 2007. *J. Biol. Chem.* doi:10.1074/jbc.M611273200.
6. Choi EY, *et al.* 2008. *Blood* 111:3607. PubMed
7. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
8. Ma Q, *et al.* 2002. *J. Biol. Chem.* 277:10638.

Description: CD11a is a 170-180 kD type I transmembrane glycoprotein also known as LFA-1α chain and integrin α_L subunit. CD11a non-covalently associates with integrin β_2 (CD18) to form LFA-1. It is expressed on all leukocytes, including B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils. It is absent on non-hematopoietic tissues and platelets. CD11a plays a central role in leukocyte cell-cell interactions and is important in lymphocyte costimulation. CD11a/CD18 binds to ICAM-1 (CD54), ICAM-2 (CD102), and ICAM-3 (CD50).

Antigen References:

1. Lub M, *et al.* 1995. *Immunol. Today* 16:479.
2. Parsons J. 1996. *Curr. Opin. Cell Biol.* 8:146.

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