SONY

Product Data Sheet

Brilliant Violet 605™ anti-human CD103 (Integrin αE)

Catalog # / Size: 2351085 / 25 tests
2351090 / 100 tests

Clone: Ber-ACT8

Isotype: Mouse IgG1, κ

Immunogen: HTLV-1 induced human T cell line MAPS16

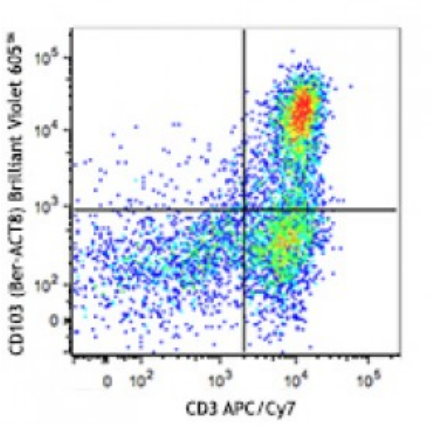
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

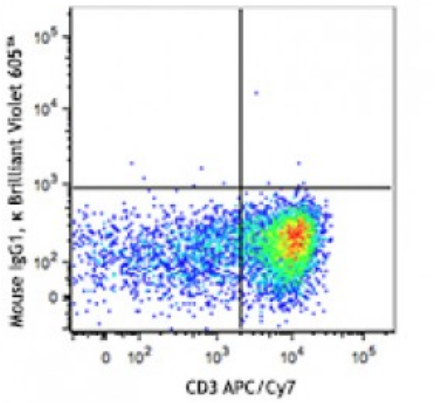
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: V A067

Concentration: Lot-specific



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with CD3 APC/Cy7 and CD103 (clone Ber-ACT8) Brilliant Violet 605™ (top) or mouse IgG1, κ Brilliant Violet 605™ isotype control (bottom).



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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

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buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

Application Notes: Additional reported applications (for the relevant formats) include: Western Blotting1, immunoprecipitation1, and immunohistochemical staining of frozen tissue sections1.

Application References:
1. Kruschwitz M, *et al.* 1991. *J. Clin. Pathol.* 44:636. (WB, IP, IHC)
2. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

Description: CD103 is a type I transmembrane glycoprotein also known as αE integrin, integrin αIEL chain, and human mucosal lymphocyte antigen 1. It belongs to the integrin family and is primarily found on intestinal intraepithelial lymphocytes (IEL). CD103 is also expressed on a subpopulation of lamina propria T cells, epithelial dendritic cells, lamina propria-derived dendritic cells, and a small subset of peripheral lymphocytes. Treg cells express high level of CD103. Hairy cell leukemia has also been shown to express CD103. The expression of CD103 on lymphocytes can be induced upon activation and TGF-β stimulation. In association with integrin β7, CD103 is expressed as an αE/β7 heterodimer. Mature CD103 protein can be cleaved into 2 chains, a 150 kD (C-terminal) chain and a 25 kD (N-terminal) chain, which remain linked by disulfide bonds. CD103 binds to E-cadherin and mediates homing of lymphocytes to the intestinal epithelium.

Antigen References:
1. Parker CM, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:1924.
2. Kruschwitz M, *et al.* 1991. *J. Clin. Pathol.* 44:636.
3. Schon MP, *et al.* 1999. *J. Immunol.* 162:6641.
4. Shaw SK, *e*