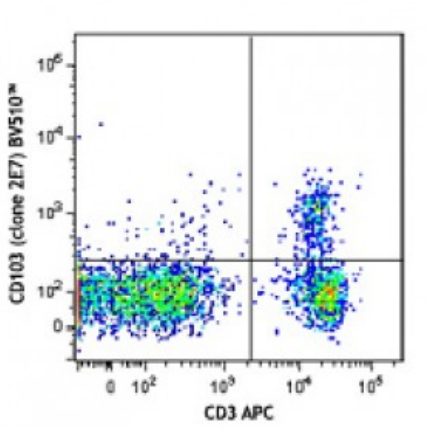
SONY

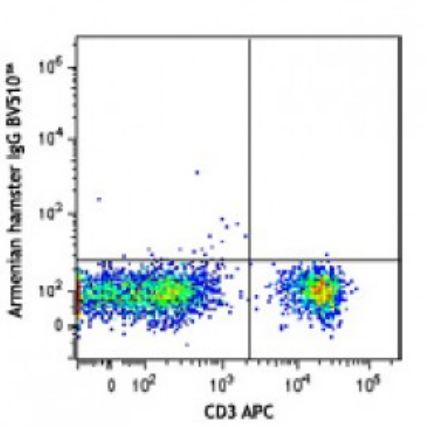
Product Data Sheet

Brilliant Violet 510™ anti-mouse CD103

Catalog # / Size:	1207115 / 50 µg
Clone:	2E7
Isotype:	Hamster IgG
Immunogen:	Mouse intestinal intraepithelial lymphocytes
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Concentration:	0.2



C57BL/6 mouse splenocytes were stained with CD3 APC and CD103 (clone 2E7) Brilliant Violet 510™ (top) or Armenian hamster IgG Brilliant Violet 510™ 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 ≤0.5 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the 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: immunoprecipitation1, immunohistochemical staining[1,7] of acetone-fixed frozen sections, immunofluorescence2, and *in vitro* activation1.

Application References:

1. LeFrancois L, *et. al,* 1994. *Eur. J. Immunol.* 24:635. (FC, IHC, IP)
2. Mysorekar IU, *et. al,* 2002. *J. Biol. Chem.* 277:37811. (FC, IF)
3. Mikami N, *et al.* 2011. *J. Immunol.* 186:6886. PubMed
4. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) PubMed
5. Quinn KM, *et al.* 2013. *J. Immunol.* 191:5085. PubMed
6. Verhagen J and Wraith DC. 2014. *J. Immunol. Methods.* S0022. (FC) PubMed
7. Xiao B, *et al.* 2015. *PLoS One* 1:e0115333. (IHC)

Description: CD103 is a type I transmembrane glycoprotein known as αE integrin or Integrin α_{IEL} chain. 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. T regulatory cells express high level of CD103. The CD103 expression on lymphocytes can be induced upon activation and TGF-β stimulation. In association with integrin β_7, CD103 is expressed as $\alpha E/\beta_7$ 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. Kilshaw PJ and SJ. Murant. 1990. *Eur. J. Immunol.* 20:2201.
2. Karecla PI, *et al.* 1995. *Eur. J. Immunol.* 25:852.
3. LeFrancois L, *et al.* 1994. *Eur. J. Immunol.* 24:635.
4. Sung SS, *et al*