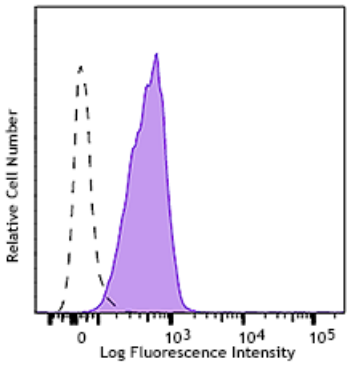
SONY

Product Data Sheet

PE/Cyanine7 anti-human CD309 (VEGFR2)

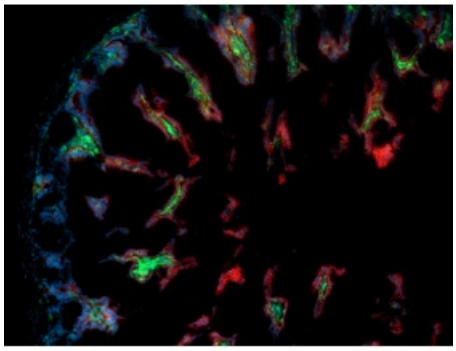
Catalog # / Size:	2565040 / 100 tests 2565035 / 25 tests
Clone:	A16085H
Isotype:	Mouse IgG1, κ
Immunogen:	Recombinant Human VEGFR2-Fc Chimera
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	IV T-164
Concentration:	Lot-specific



HUVEC human endothelial cells were stained with CD309 (clone A16085H) PE/Cy7 (filled histogram) or mouse IgG1, κ 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 in 100 µl staining volume or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes:	This clone does not cross-react with mouse endothelial cells.



C57BL/6 mouse frozen intestine section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 µg/mL of anti-mouse CD45 (clone S18009D) Alexa Fluor® 488 (green), anti-mouse CD326 (clone G8.8) Alexa Fluor® 647 (red) overnight at 4°C. Nuclei were counterstained with DAPI (blue). The image was captured by 10X objective.

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Application References:

1. DiSalvo J, *et al*. 1995. *J Biol Chem*. 270:7717.
2. McColl BK, et al. 2003. *J Exp Med*. 198:863.
3. Albuquerque RJ, *et al*. 2009. *Nat Med*. 15:1023.
4. Guangqi E, et al. 2012. *J Biol Chem*. 287:3029.
5. Koch S, and Claesson-Welsh. 2012. *Cold Spring Harb Perspect Med*. 2:a006502.
6. Munaut C, *et al*. 2012. *Plos One*. 7:e33475.
7. Wehland M, *et al*. 2013. *Int J Mol Sci*. 14:9338.

Description: CD309, also known as VEGF-R2, KDR, and Flk-1 (mouse), is a type I transmembrane glycoprotein. It is a member of the CSF-1/PDGF receptor family of type III tyrosine kinase receptors. Human VEGF-R2 is mainly expressed by endothelial cells, embryonic tissues, and megakaryocytes. It plays an important role in the regulation of angiogenesis, vasculogenesis, and vascular permeability. The ligands of VEGF-R2 include VEGF-A, VEGF-C, and VEGF-D splice isoforms. Activation of VEGF-R2 with its ligands results in the receptor dimerization and autophosphorylation, stimulating endothelial cell proliferation and migration.

Antigen References:

1. DiSalvo J, *et al*. 1995. *J Biol Chem*. 270:7717.
2. McColl BK, et al. 2003. *J Exp Med*. 198:863.
3. Albuquerque RJ, *et al*. 2009. *Nat Med*. 15:1023.
4. Guangqi E, et al. 2012. *J Biol Chem*. 287:3029.
5. Koch S, and Claesson-Welsh. 2012. *Cold Spring Harb Perspect Med*. 2:a006502.
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