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# Product Data Sheet

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## PE/Cyanine7 anti-human CD106

<b>Catalog # / Size:</b>	2129085 / 25 tests 2129090 / 100 tests	□ TNF- $\alpha$ stimulated HUVEC cells stained with CD106 (clone STA) PE/Cyanine7 (filled histogram) or mouse IgG1, $\kappa$ PE/Cyanine7 isotype control (open histogram).
<b>Clone:</b>	STA	
<b>Isotype:</b>	Mouse IgG1, $\kappa$	
<b>Reactivity:</b>	Human	
<b>Preparation:</b>	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions. The solution is free of unconjugated PE/Cyanine7 and unconjugated antibody.	
<b>Formulation:</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).	
<b>Workshop Number:</b>	V A013	
<b>Concentration:</b>	Lot-specific	

## 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  $\mu$ L per million cells in 100  $\mu$ L staining volume or 5  $\mu$ L per 100  $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunofluorescence<sup>3</sup>, immunohistochemical staining of acetone-fixed frozen tissue sections, immunoprecipitation<sup>2</sup>, and ELISA<sup>2</sup> capture for sCD106.

**Application References:**

- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Leca G, *et al.* 1995. *J. Immunol.* 154:1069. (ELISA IP)
- Yen YT, *et al.* 2006. *J. Virol.* 80:2648. (IF) [PubMed](#)
- Dmitrieva NI, *et al.* 2015. *PLoS One.*10:128870. [PubMed](#)

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**Description:** CD106 is a 110 kD single chain type I glycoprotein also known as VCAM-1 and INCAM-110. It is expressed predominantly on activated vascular endothelium but has also been identified on follicular and interfollicular dendritic cells, some macrophages, bone marrow stromal cells, and non-vascular cell populations within joints, kidney, muscle, heart, placenta, and brain. Expression on endothelial cells as well as many other cells is induced by inflammatory stimuli and cytokines. Activated endothelial cells can release soluble forms of CD106 which can be detected in the blood. CD106 binds the integrins CD49d/CD29 (VLA-4) and  $\alpha$ 4 $\beta$ 7 that contribute to leukocyte adhesion, transmigration, and co-stimulation of T cell proliferation.

**Antigen References:**

- Carlos T, *et al.* 1994. *Blood* 84:2068.
- Jones E, *et al.* 1995. *Nature* 373:539.