

1P-606-T025

Monoclonal Antibody to CD106 Phycoerythrin (PE) conjugated (25 tests)

Clone:	STA
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody STA recognizes CD106 antigen (VCAM-1), a 100-110 kDa type I membrane protein of the immunoglobulin superfamily, a crucial mediator of leukocyte adhesion, and a costimulation molecule. HLDA V; WS Code A013
Immunogen:	Human DS6 T cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD106 / VCAM-1 (vascular cell adhesion molecule-1) is an Ig-like cell surface adhesion molecule binding VLA-4 integrin. VCAM-1 is a potent T cell costimulatory molecule taking part in their positive selection and survival, as well as in adhesion, transendothelial migration and activation of peripheral T cells. VCAM-1 is also involved in endothelial cell-cell contacts. Whereas VCAM-1 normally mediates leukocyte extravasation to sites of tissue inflammation, tumour cells can use overexpressed VCAM-1 to escape T cell immunity. Soluble form of VCAM-1 (sVCAM-1) is an inflammatory marker and can be used also in prognosis of subsequent cardiovascular events following acute coronary syndromes.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

*van Wetering S, van den Berk N, van Buul JD, Mul FP, Lommerse I, Mous R, ten Klooster JP, Zwaginga JJ, Hordijk PL: VCAM-1-mediated Rac signaling controls endothelial cell-cell contacts and leukocyte transmigration. *Am J Physiol Cell Physiol.* 2003 Aug;285(2):C343-52.

*Wu TC: The role of vascular cell adhesion molecule-1 in tumor immune evasion. *Cancer Res.* 2007 Jul 1;67(13):6003-6.

*Postadzhiyan AS, Tzontcheva AV, Kehayov I, Finkov B: Circulating soluble adhesion molecules ICAM-1 and VCAM-1 and their association with clinical outcome, troponin T and C-reactive protein in patients with acute coronary syndromes. *Clin Biochem.* 2007 Sep 19

*Paessens LC, Singh SK, Fernandes RJ, van Kooyk Y: Vascular cell adhesion molecule-1 (VCAM-1) and intercellular adhesion molecule-1 (ICAM-1) provide co-stimulation in positive selection along with survival of selected thymocytes. *Mol Immunol.* 2008 Jan;45(1):42-8.

*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).

*Leca G, Mansur SE, Bensussan A: Expression of VCAM-1 (CD106) by a subset of TCR gamma delta-bearing lymphocyte clones. Involvement of a metalloprotease in the specific hydrolytic release of the soluble isoform. *J Immunol.* 1995 Feb 1;154(3):1069-77.

*Yen YT, Liao F, Hsiao CH, Kao CL, Chen YC, Wu-Hsieh BA: Modeling the early events of severe acute respiratory syndrome coronavirus infection in vitro. *J Virol.* 2006 Mar;80(6):2684-93.

For laboratory research only, not for drug, diagnostic or other use.