

**SM272F****Monoclonal Antibody to CD31 / PECAM1 - FITC**

<b>Alternate names:</b>	EndoCAM, GPIIA', PECAM-1, Platelet endothelial cell adhesion molecule
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	<p>CD31, also known as platelet endothelial cell adhesion molecule 1 (PECAM1), is a type I integral membrane glycoprotein and a member of the immunoglobulin superfamily of cell surface receptors. It is constitutively expressed on the surface of endothelial cells, and concentrated at the junction between them. It is also weakly expressed on many peripheral lymphoid cells and platelets.</p> <p>CD31 has been used to measure angiogenesis in association with tumor recurrence. Other studies have also indicated that CD31 and CD34 can be used as markers for myeloid progenitor cells and recognize different subsets of myeloid leukemia infiltrates (granular sarcomas).</p>
<b>Uniprot ID:</b>	<a href="#">Q3SWT0</a>
<b>NCBI:</b>	<a href="#">NP_113779.1</a>
<b>GeneID:</b>	<a href="#">29583</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	SM20F (for use in rat samples)
<b>Clone:</b>	TLD-3A12
<b>Immunogen:</b>	Activated, Lewis rat derived microglial cells. Spleen cells from immunised BALB/c mouse were fused with cells of the mouse SP2 myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction from Tissue Culture Supernatant <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS <b>Preservatives:</b> 0.09% Sodium Azide <b>Stabilizers:</b> 1% BSA <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer I
<b>Applications:</b>	<b>Flow Cytometry:</b> Use 10 µl of neat antibody to label 10e6 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognises PECAM-1 (CD31), a type 1 transmembrane protein expressed primarily on endothelial cells, platelets and leucocytes. Clone TLD-3A12 has been shown to partially block the proliferative response of antigen-specific CD4+ T cells to antigen-presenting cells and relevant antigen ( <i>Stevenson, K.S. et al. 2009</i> ). We recommend SM272LE for use in functional studies. This clone has been reported as suitable for use on formalin-fixed paraffin-embedded sections pre-treated with 0.2M boric acid, pH7.0. ( <i>Wilson et al. 2007</i> ). Mouse anti Rat CD31, clone TLD-3A12 has been shown to be cross-reactive with endothelial cells

derived from rhesus macaque (*Maclean et al.* 2001).

**Species Reactivity:**

**Tested:** Rat.

**Expected from sequence similarity:** Rhesus Monkey.

**Storage:**

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

**General Readings:**

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- model. *Mol Med*. 2007 Sep-Oct;13(9-10):480-7. PubMed PMID: 17762899.
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