

## Product datasheet for **SM1122F**

### Integrin alpha 1 (ITGA1) Mouse Monoclonal Antibody [Clone ID: TS2/7]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	TS2/7
Applications:	FC
Recommended Dilution:	Flow Cytometry: Use 10 µl of neat-1/5 diluted antibody to label 10e6 cells in 100 µl.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody recognises the alpha 1 integrin subunit, which forms the VLA-1 heterodimer in association with the beta 1 integrin.
Formulation:	PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: FITC State: Liquid purified IgG fraction. Label: Fluorescein Isothiocyanate Isomer 1
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G.
Conjugation:	FITC
Storage:	Store the antibody 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.
Stability:	Shelf life: one year from despatch.
Gene Name:	integrin subunit alpha 1
Database Link:	<a href="#">Entrez Gene 3672 Human P56199</a>



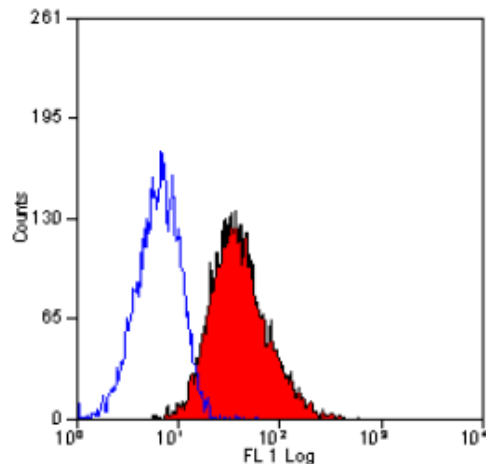
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**Background:**

Integrins are important extracellular matrix (ECM) receptor proteins located on cell surfaces. They are heterodimers composed of an alpha and a beta transmembrane glycoprotein subunit. Around twenty two different integrins (different alpha/ beta subunit combinations) are found in nature. Integrins are generally present in high concentrations at the cell surface, but, unlike most other cell surface receptors, they bind ligands with very low affinity. Due to their weak individual binding, integrins need to cluster and bind in groups in order to effectively bind the ECM. Integrins bind many different ligands including laminin. Each integrin is made up of a large N terminal extracellular domain that binds the ECM ligand and a small C terminal cytoplasmic domain that mediates interaction with the actin cytoskeleton and signaling function. Alpha 1 integrin along with alpha 2, alpha L and alpha M has a unique inserted domain. Integrin alpha 1 is a receptor for laminin and collagen. The alpha1 subunit is also known as CD49a. CD49a associates with CD29 (beta 1 integrin), to form an alpha1 beta1 heterodimer, identified as the rat homologue to VLA1, which is involved in cellular adhesion to laminin and collagen.

**Synonyms:**

Integrin alpha-1, ITGA-1, VLA-1, VLA1

**Product images:**

Staining of HeLa cells with Mouse Anti Human CD49a-FITC (SM1122F/FT).