

DESCRIPTION

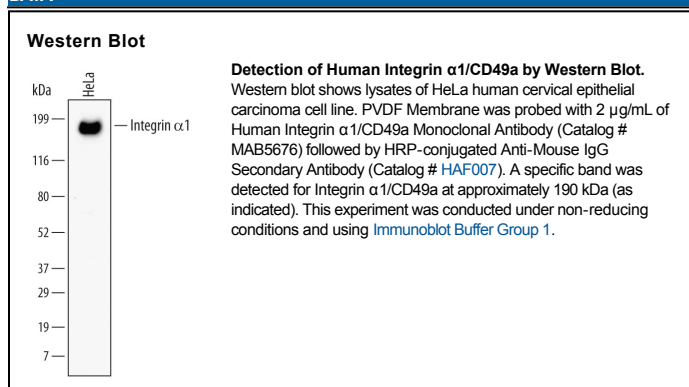
Species Reactivity	Human
Specificity	Detects human Integrin α 1/CD49a in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with rhIntegrin α 2, 3, 4, 5, 6, 8, 9, 10, 11, L, M, V, X, α 6x1/ β 4, α D/ β 2, α 7x2/ β 1, α E/ β 7, or α 2b/ β 3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 639508
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived human Integrin α 1/CD49a Phe29-Pro1141 Accession # P56199
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 μ g/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Integrin α 1 (also VLA-1, CD49a and Laminin and Collagen Receptor) is a 190-210 kDa member of the integrin alpha chain family of molecules. It is found on smooth muscle cells, osteoblasts, adipocytes and intestinal epithelium. Integrin α 1 forms a noncovalent heterodimer with Integrin β 1, and serves as a divalent-cation dependent receptor for collagen types I, IV, VI, XIII and XVI. It also binds the diarrhea-associated NSP4 enterotoxin of rotavirus. Mature human Integrin α 1 is a 1151 amino acid (aa) type I transmembrane glycoprotein that contains a 1113 aa extracellular domain (ECD) and a 15 aa cytoplasmic tail. The ECD contains one vWFA/I-domain (aa 147-360) that binds collagen, plus multiple divalent cation binding sites. Potential splice variants exist that show a two and four aa substitution for aa 765-1179. Over aa 29-1141 (the ECD), human Integrin α 1 shares 88% aa identity with mouse Integrin α 1.