Polyclonal Anti-Integrin α1, *ITGA1* (Sepharose Bead Conjugate)

Catalogue No. PA1045-S

Lot No. 03F01

Ig type: rabbit

IgG **Size:** 100μg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application

Immunoprecipitation(IP)

Immunogen

A peptide at the C-terminus of ITGA1 of human origin, identical to the related mouse sequence.

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN_3a_3 preservative.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

Integrin alpha 1 (ITGA1) chain associates with the beta 1 (ITGB1) chain to form a heterodimer that functions as a dual laminin/collagen receptor in neural cells and hematopoietic cells. ITGA1 has a 206-amino acid I domain in its N-terminal half, followed by 3 divalent cation-binding sites and a C-terminal transmembrane domain with a short cytoplasmic tail. It also has 28 potential N-glycosylation sites. Human ITGA1 was expressed in a mouse fibroblast cell line as a 180-kD protein. ITGA1 is involved in the early remodeling of osteoarthritic cartilage and plays an essential role in the regulation of mesenchymal stem cell proliferation and cartilage production. It also plays an essential role in the regulation of MSC proliferation and cartilage production.

REFERENCE

1. Douville, P.; Seldin, M. F.; Carbonetto, S. : Genetic mapping of the integrin alpha-1 gene (Vla1) to mouse chromosome 13. Genomics 14: 503-505, 1992. 2. Lee HJ, Kim SY; Koh JM; Bok J; Kim KJ; Kim KS; Park MH; Shin HD; Park BL; Kim TH; Hong JM; Park EK; Kim DJ; Oh B; Kimm K; Kim GS; Lee JY. Polymorphisms and haplotypes of integrinalpha1 (ITGA1) are associated with bone mineral density and fracture risk in postmenopausal Koreans.Bone. 2007 Dec;41(6):979-86. Epub 2007 Sep 5.

3. Ekholm, E.; Hankenson, K. D.; Uusitalo, H.; Hiltunen, A.; Gardner, H.; Heino, J.; Penttinen, R. : Diminished callus size and cartilage synthesis in alpha-1 beta-1 integrin-deficient mice during bone fracture healing. Am. J. Path. 160: 1779-1785, 2002.

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