

For Research Use Only

Recombinant Human Integrin alpha-1 beta-1 Heterodimer protein (rFc Tag & His Tag)

Catalog Number: Eg2089



Basic Information

Species:
Human

Purity:
>90 %, SDS-PAGE

Tag:
rFc Tag & His Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/ μ g protein, LAL method

Source:
HEK293-derived Human Integrin alpha-1 beta-1 heterodimer protein, Human Integrin alpha-1 protein Phe29-Pro1141 (Accession# P56199) with a rabbit IgG Fc tag at the C-terminus, Human Integrin beta-1 protein Gln21-Asp728 (Accession# P05556-1) with a his tag at the C-terminus.

GeneID:
3672 and 3688

Accession:
P56199 and P05556-1

Predicted Molecular Mass:
149.4 kDa (Integrin alpha-1) and 79.4 kDa (Integrin beta-1)

SDS-PAGE:
150-220 kDa (Integrin alpha-1) and 90-120 kDa (Integrin beta-1), reducing (R) conditions

Formulation:
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

The integrins are a superfamily of cell adhesion receptors that bind to extracellular matrix ligands, cell-surface ligands, and soluble ligands. They are transmembrane $\alpha\beta$ heterodimers and at least 24 distinct integrin heterodimers are formed by the combination of 18 α and eight β known subunits. In addition to mediating cell adhesion, integrins also play important roles in modulating signal transduction pathways that control cellular responses including migration, proliferation, differentiation, and apoptosis. Integrin alpha-1 (ITGA1, CD49a) combines with the beta 1 subunit (ITGB1, CD29) to form a cell-surface receptor for collagen and laminin. This receptor is involved in cell-cell adhesion and may play a role in inflammation and fibrosis. Integrin alpha-1 is a transmembrane glycoprotein with an apparent molecular weight of 180-250 kDa, larger than the calculated molecular weight of 131 kDa.

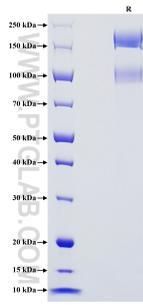
References

1. Takada, Yoshikazu et al. Genome biology vol. 8,5 (2007): 215.
2. Harburger, David S, and David A Calderwood. Journal of cell science vol. 122,Pt 2 (2009): 159-63.

Synonyms

ITGA1, ITGB1, CD29, CD49 antigen-like family member A, CD49a

Selected Validation Data



Purity of Recombinant Human Integrin alpha-1 beta-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.

For technical support and original validation data for this product please contact

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