

Synonym

Integrin alpha 9 beta 1, ITGA9 & ITGB1

Source

Human ITGA9&ITGB1 Heterodimer Protein, His Tag&Tag Free (IT1-H52W4) is expressed from human 293 cells (HEK293). It contains AA Tyr 30 - Trp 981 (ITGA9) & Gln 21 - Asp 728 (ITGB1) (Accession # [Q13797-1](#) (ITGA9) & [P05556-1](#) (ITGB1)).

Predicted N-terminus: Tyr 30 (ITGA9) & Gln 21 (ITGB1)

Molecular Characterization

Human ITGA9&ITGB1 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGA9 and ITGB1, has a calculated MW of 111.1 kDa (ITGA9) and 82.7 kDa (ITGB1). Subunit ITGA9 is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB1 contains no tag but a basic tail at the C-terminus. The reducing (NR) protein migrates as 210-240 kDa respectively due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

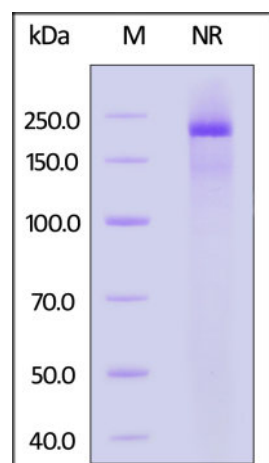
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human ITGA9&ITGB1 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Background

Integrin alpha 9 beta 1 is one of twelve integrin family adhesion receptors that share the beta 1 (CD29) subunit. It is the non-covalent heterodimer of 150 kDa alpha 9 and 130 kDa beta 1 type I transmembrane glycoprotein subunits. The integrin alpha 9 beta 1 mediates cell adhesion to tenascin-C and VCAM-1 by binding to sequences distinct from the common integrin-recognition sequence, arginine-glycine-aspartic acid (RGD). A thrombin-cleaved NH(2)-terminal fragment of osteopontin containing the RGD sequence has recently been shown to also be a ligand for integrin alpha 9 beta 1.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.