# ATAGENIX LABORATORIES

**Catalog Number:ATMP00225HU**

**Recombinant Human ITGA2B protein ,C- His Tag**

## Product Details

### Summary

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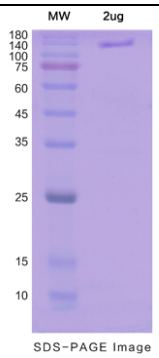
|---|---|
| **English name** | Recombinant Human ITGA2B protein ,C- His Tag |
| **Purity** | >90% as determined by SDS-PAGE |
| **Endotoxin level** | <1.0 EU per μg of the protein as determined by the LAL method. |
| **Construction** | A DNA sequence encoding the human ITGA2B(Met1-Arg993) was fused with the C-terminal His Tag |
| **Accession #** | P08514 |
| **Host** | Mammalian cells |
| **Species** | Homo sapiens (Human) |
| **Predicted Molecular Mass** | 109.34kDa |
| **Formulation** | Supplied as solution form in PBS or lyophilized from PBS . |
| **Shipping** | In general, proteins are provided as lyophilized powder/frozen liquid. They are shipped out with dry ice/blue ice unless customers require otherwise. |
| **Stability &Storage** | Use a manual defrost freezer and avoid repeated freeze thaw cycles.<br>Store at 2 to 8 °C for one week .<br>Store at -20 to -80 °C for twelve months from the date of receipt. |
| **Reconstitution** | Reconstitute in sterile water for a stock solution.A copy of datasheet will be provided with the products, please refer to it for details. |

### SDS-PAGE image



SDS-PAGE Image

### Background

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| **Background** | Integrin alpha 2b beta 3 (also alpha IIb beta 3 or GPIIbIIIa) is the only alpha 2b integrin and shares the beta 3 subunit only with alpha V beta 3. It is the |

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non-covalent heterodimer of type I transmembrane subunits, alpha 2b/CD41 (present as a disulfide-linked complex of 114 kDa heavy and 22 kDa light chains) and 93 kDa beta 3/CD61. It is the most abundant integrin expressed by megakaryocytes and platelets, both on the surface and within alpha granules. Deficiencies of alpha 2b beta 3 produce Glanzmann thrombasthenia, a potentially serious bleeding disorder. In its constitutively inactive state, alpha 2b beta 3 is flexed within the extracellular domains. Activation, either by intracellular signaling or by Mg2+ or Mn2+ binding, extends the integrin to expose the ligand binding site created by interaction of the beta 3 vWFA domain with the alpha 2b beta -propeller structure. The 962 aa human alpha 2b ECD shares 78-83% aa sequence identity with mouse, rat, canine, equine and porcine alpha 2b while the 685 aa human beta 3 ECD shares 95% aa identity with horse and dog, and 89-92% aa identity with mouse, rat and porcine beta 3. It is unclear whether splice variants of beta 3 that differ in the cytoplasmic domain are expressed significantly in platelets. However, platelet expression of a beta 3 splice variant that produces a soluble 60 kDa beta 3 isoform, and an alpha 2b isoform lacking aa 948-982, have been reported. Active cell surface alpha 2b beta 3 adheres to fibrinogen, mediating platelet/platelet interactions that initiate a cascade of platelet activation and aggregation, extracellular matrix adhesion, formation of thrombi and clot retraction. It also binds matrix proteins that have an RGD motif, including fibronectin, plasminogen, prothrombin, thrombospondin and vitronectin. Targeting of alpha 2b beta 3 by therapeutic antibodies or small molecules can inhibit formation of thrombi in patients with acute coronary syndrome, and potentially inhibits tumor angiogenesis and metastasis by blocking interaction of platelet alpha 2b beta 3 with tumor cells.

**Alternative Names** ITGA2B，GP2B, ITGAB

**References**

Erpenbeck, L. and M.P. Schon (2010) Blood 115:3427.