

## Recombinant Mouse Itgb3 Protein, Myc/DDK-tagged

**Cat. No.** Itgb3-3606M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b> | Purified recombinant protein of mouse full-length integrin beta 3 (Itgb3), with C-terminal MYC/DDK tag, expressed in HEK293T cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | <p>Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIB/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIB/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIB/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha-IIB/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surfaces. Fibrinogen binding enhances SELP expression in activated platelets. ITGAV:ITGB3 binds to fractalkine (CX3CL1) and acts as its coreceptor in CX3CR1-dependent fractalkine signaling. ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling. ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling. ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling. ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling. ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling.</p> |

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ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling. ITGAV:ITGB3 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1. ITGAV:ITGB3 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1. In brain, plays a role in synaptic transmission and plasticity. Involved in the regulation of the serotonin neurotransmission, is required to localize to specific compartments within the synapse the serotonin receptor SLC6A4 and for an appropriate reuptake of serotonin. Controls excitatory synaptic strength by regulating GRIA2-containing AMPAR endocytosis, which affects AMPAR abundance and composition. ITGAV:ITGB3 act as a receptor for CD40LG.

|                       |                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 87.2 kDa                                                                                                                                      |
| <b>Purity</b>         | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                   |
| <b>Stability</b>      | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>        | Store at -80 centigrade after receiving vials.                                                                                                |
| <b>Concentration</b>  | >50 µg/mL as determined by microplate BCA method                                                                                              |
| <b>Storage Buffer</b> | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                         |

## GENE INFORMATION

|                        |                                                                    |
|------------------------|--------------------------------------------------------------------|
| <b>Gene Name</b>       | <i>Itgb3</i> integrin beta 3 [ <i>Mus musculus</i> (house mouse) ] |
| <b>Official Symbol</b> | <i>Itgb3</i>                                                       |

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Synonyms</b>       | ITGB3; integrin beta 3; integrin beta-3; GPIIIa; platelet gpIIIIa; platelet membrane glycoprotein IIIa; CD61; GP3A; INGRB3; MGC159221; MGC159223 |
| <b>Gene ID</b>        | 16416                                                                                                                                            |
| <b>mRNA Refseq</b>    | NM_016780                                                                                                                                        |
| <b>Protein Refseq</b> | NP_058060                                                                                                                                        |
| <b>UniProt ID</b>     | O54890                                                                                                                                           |

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