# Active Recombinant Mouse Tgfbr2 Protein (Ile24-Asp184), mFc-tagged

**Cat. No.** Tgfbr2-01M **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Mouse TGF-beta RII (Ile24-Asp184) Protein with Human IgG1 (Pro100-Lys330) Fc tag at C-terminus was expressed in Mouse myeloma cell line. |
| **Species** | Mouse |
| **Source** | NS0 |
| **ProteinLength** | Ile24-Asp184 |
| **Description** | Enables SMAD binding activity; transforming growth factor beta binding activity; and transforming growth factor beta-activated receptor activity. Involved in several processes, including animal organ development; circulatory system development; and positive regulation of epithelial to mesenchymal transition involved in endocardial cushion formation. Acts upstream of or within several processes, including animal organ development; cell surface receptor signaling pathway; and positive regulation of tolerance induction. Located in external side of plasma membrane. Is expressed in several structures, including alimentary system; central nervous system; early conceptus; embryo mesenchyme; and genitourinary system. Used to study DiGeorge syndrome; Loeys-Dietz syndrome; cleft soft palate; and prostate cancer. Human ortholog(s) of this gene implicated in Loeys-Dietz syndrome 2; Marfan syndrome; gastrointestinal system cancer (multiple); hereditary nonpolyposis colorectal cancer type 6; and pancreatic cancer. Orthologous to human TGFBR2 (transforming growth factor beta receptor 2). |

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| **Form** | Disulfide-linked homodimer |
| **Bio-activity** | Measured by its ability to inhibit TGF-beta 1 activity on HT-2 mouse T cells. The ED50 for this effect is 10-70 ng/mL. |
| **Molecular Mass** | Predicted Molecular Mass: 44.6 kDa (monomer)<br>SDS-PAGE: 60-65 kDa, reducing conditions |
| **N-terminal Sequence Analysis** | Ile24 |
| **Endotoxin** | <0.10 EU/μg of the protein by the LAL method. |
| **Purity** | >95%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| **Storage** | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.<br>12 months from date of receipt, -20 to -70 centigrade as supplied.<br>1 month, 2 to 8 centigrade under sterile conditions after reconstitution.<br>3 months, -20 to -70 centigrade under sterile conditions after reconstitution. |
| **Storage Buffer** | Lyophilized from a 0.2 μm filtered solution in PBS. |
| **Reconstitution** | Reconstitute at 100 μg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. |

## GENE INFORMATION

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| **Gene Name** | Tgfbr2 transforming growth factor, beta receptor II [ Mus musculus (house mouse) ] |
| **Official Symbol** | Tgfbr2 |

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| **Synonyms** | Tgfbr2; transforming growth factor, beta receptor II; DNIIR; RIIDN; TBR-II; TbetaRII; TbetaR-II; 1110020H15Rik; TGF-beta receptor type-2; TGF-beta receptor II; TGF-beta receptor type II; TGF-beta type II receptor; TGFR-2; transforming growth factor-beta receptor type II; EC 2.7.11.30 |
| **Gene ID** | 21813 |
| **mRNA Refseq** | NM_009371 |
| **Protein Refseq** | NP_033397 |
| **UniProt ID** | Q62312 |

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