

## Recombinant Human TGFR2 Protein (L50-D159), Tag Free

Cat. No. TGFR2-1291H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Product Overview | Recombinant Human TGFR2(L50-D159) Protein was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ProteinLength    | L50-D159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Description      | <p>Transmembrane serine/threonine kinase forming with the TGF-beta type I serine/threonine kinase receptor, TGFR1, the non-promiscuous receptor for the TGF-beta cytokines TGFB1, TGFB2 and TGFB3. Transduces the TGFB1, TGFB2 and TGFB3 signal from the cell surface to the cytoplasm and is thus regulating a plethora of physiological and pathological processes including cell cycle arrest in epithelial and hematopoietic cells, control of mesenchymal cell proliferation and differentiation, wound healing, extracellular matrix production, immunosuppression and carcinogenesis. The formation of the receptor complex composed of 2 TGFR1 and 2 TGFR2 molecules symmetrically bound to the cytokine dimer results in the phosphorylation and the activation of TGFR1 by the constitutively active TGFR2. Activated TGFR1 phosphorylates SMAD2 which dissociates from the receptor and interacts with SMAD4. The SMAD2-SMAD4 complex is subsequently translocated to the nucleus where it modulates the transcription of the TGF-beta-regulated genes. This constitutes the canonical SMAD-dependent TGF-beta signaling cascade. Also involved in non-canonical, SMAD-independent TGF-beta signaling pathways.</p> |

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|                       |                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Liquid                                                                                                                                                              |
| <b>Endotoxin</b>      | < 0.01 EU per µg of the protein                                                                                                                                     |
| <b>Purity</b>         | 90%                                                                                                                                                                 |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.                                                                           |
| <b>Storage</b>        | Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| <b>Storage Buffer</b> | Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol                                                                                               |
| <b>Shipping</b>       | It is shipped out with blue ice.                                                                                                                                    |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | TGFBR2 transforming growth factor, beta receptor II (70/80kDa) [ Homo sapiens (human) ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Official Symbol</b> | TGFBR2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | TGFBR2; transforming growth factor, beta receptor II (70/80kDa); MFS2, transforming growth factor, beta receptor II (70 80kD); TGF-beta receptor type-2; tbetaR-II; TGF-beta receptor type II; TGF-beta type II receptor; TGF-beta receptor type IIB; transforming growth factor-beta receptor type II; transforming growth factor beta receptor type IIC; transforming growth factor, beta receptor II (70/80kDa) isoform 1; transforming growth factor, beta receptor II (70/80kDa) isoform 2; AAT3; FAA3; MFS2; RIIC; LDS1B; LDS2B; TAAD2; TGFR-2; TGFbeta-RII; |

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|----------------|--------------|
| Gene ID        | 7048         |
| mRNA Refseq    | NM_001024847 |
| Protein Refseq | NP_001020018 |
| MIM            | 190182       |
| UniProt ID     | P37173       |

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