

## Active Recombinant Human EGFR Mutant (d747-752 P753S), GST-tagged

**Cat. No.** EGFR-39H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Human EGFR Protein (695-end aa, d747-752 deletion/P753S mutation), was expressed in Sf9 insect cells (via baculovirus) with N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ProteinLength</b>    | 695-end a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | EGFR is the receptor for members of the EGF family and is a transmembrane glycoprotein that has tyrosine kinase activity. Binding of epidermal growth factor to EGFR induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation, differentiation, motility, and cell survival. Activation of EGFR triggers mitogenic signaling in gastrointestinal mucosa, and its expression is upregulated in colon cancers and most neoplasms. Activation of EGFR triggers activation of the ERK-signaling pathway in normal gastric epithelial and colon cancer cell lines. Inactivation of EGFR with selective inhibitors significantly reduces ERK2 activation, c-fos mRNA expression and cell proliferation. |
| <b>Form</b>             | 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bio-activity</b>     | 1.3 nmol/min/mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | ~89 kDa                                                                                                                                                                                                                                 |
| <b>Applications</b>   | Kinase Assay                                                                                                                                                                                                                            |
| <b>Storage</b>        | Store product at –70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. |
| <b>Concentration</b>  | 0.1ug/ul                                                                                                                                                                                                                                |

## GENE INFORMATION

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| <b>Gene Name</b>       | EGFR epidermal growth factor receptor [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Official Symbol</b> | EGFR                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>        | EGFR; epidermal growth factor receptor; epidermal growth factor receptor (avian erythroblastic leukemia viral (v erb b) oncogene homolog) , ERBB; ERBB1; erythroblastic leukemia viral (v erb b) oncogene homolog (avian); proto-oncogene c-ErbB-1; cell growth inhibiting protein 40; cell proliferation-inducing protein 61; receptor tyrosine-protein kinase erbB-1; avian erythroblastic leukemia viral (v-erb-b) oncogene homolog; ERBB; HER1; mENA; PIG61; |
| <b>Gene ID</b>         | 1956                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>     | NM_005228                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>  | NP_005219                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>MIM</b>             | 131550                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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| <b>UniProt ID</b>          | P00533                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Chromosome Location</b> | 7p12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Pathway</b>             | Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Arf6 signaling events, organism-specific biosystem; Axon guidance, organism-specific biosystem; Bladder cancer, organism-specific biosystem;                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Function</b>            | ATP binding; MAPK/ERK kinase kinase activity; actin filament binding; double-stranded DNA binding; enzyme binding; epidermal growth factor-activated receptor activity; epidermal growth factor-activated receptor activity; identical protein binding; contributes_to nitric-oxide synthase regulator activity; nucleotide binding; protein binding; protein heterodimerization activity; protein phosphatase binding; protein tyrosine kinase activity; protein tyrosine kinase activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; signal transducer activity; transmembrane receptor protein tyrosine kinase activity; transmembrane receptor protein tyrosine kinase activity; transmembrane signaling receptor activity; |