## Recombinant human EGFR protein ab208473

### Description

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Recombinant human EGFR protein</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biological activity</strong></td>
<td>The specific activity of ab208473 was determined to be 90 nmol/min/mg.</td>
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<tr>
<td><strong>Purity</strong></td>
<td>&gt; 75% Densitometry.</td>
</tr>
<tr>
<td><strong>Expression system</strong></td>
<td>Baculovirus infected Sf9 cells</td>
</tr>
<tr>
<td><strong>Accession</strong></td>
<td>P00533</td>
</tr>
<tr>
<td><strong>Protein length</strong></td>
<td>Protein fragment</td>
</tr>
<tr>
<td><strong>Animal free</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Nature</strong></td>
<td>Recombinant</td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td>Human</td>
</tr>
<tr>
<td><strong>Sequence</strong></td>
<td>SGEAPNQALLRLIKETEFKKKVLGSGAFGTYYKGLWIP EGEKVKIPVAI KEATSPKANKEILDAYVMASVDNPHVCRLLCGLTST VQLITQLMPFGC LLDYREHKDNISQYLLNWVCQQIAKGMNYLEDRLLVH RDLAARNVLVKT PQHVKITDFGLAKLLGAEEKEYHAEGGKVPIKWMALE SILHRYTHQSDV WSYGVTVWELMTFGSKPYDGIPASEISSILEKGERLPQ PPICTDVYMIM VKCWMIDADSRPKFRELIEFSKMARDPQRYLVIQGDE RMHLPSPTDSNF YRALMDEEDMDDVDADEYLPQGFFSSPSTSRTPL LSSLSATSNSTV ACIDRNGLQSCPIDESFLQRYSSDTDGALTEDSIDDT FLPVPEYINQSV PKRPAGSVQNVHYHQNQLNPAPSRDHYDQPHSTAV GNPEYNTQOPTCV NSTFDSPAHHWAEQGKHQISLDNPYQDFFPKEAKP NGIFKGSTAENAELRVAPQSEFIGA</td>
</tr>
<tr>
<td><strong>Predicted molecular weight</strong></td>
<td>87 kDa including tags</td>
</tr>
<tr>
<td><strong>Amino acids</strong></td>
<td>695 to 1210</td>
</tr>
<tr>
<td><strong>Tags</strong></td>
<td>GST tag N-Terminus</td>
</tr>
</tbody>
</table>
**Additional sequence information**  Mutation (d747-749) (NM_005228).

**Specifications**

Our **Abpromise guarantee** covers the use of **ab208473** in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications**
- SDS-PAGE
- Functional Studies

**Form**
- Liquid

**Preparation and Storage**

**Stability and Storage**  Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.

**pH**: 7.5

**Constituents**: 0.79% Tris HCl, 0.87% Sodium chloride, 0.31% Glutathione, 0.003% EDTA, 0.002% PMSF, 0.004% DTT, 25% Glycerol

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**General Info**

**Function**  Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin.

Isoform 2 may act as an antagonist of EGF action.

**Tissue specificity**  Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

**Involvement in disease**  Lung cancer

Inflammatory skin and bowel disease, neonatal, 2

**Sequence similarities**  Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.

**Post-translational modifications**  Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated.

Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits STAT3. Dephosphorylated by PTPN1 and PTPN2.

Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin
linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occurs. Deubiquitination by OTUD7B prevents degradation. Ubiquitinated by RNF115 and RNF126. Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197.

**Cellular localization**


**Images**

SDS-PAGE analysis of ab208473.

Sample Kinase Activity assay plot using ab208473, showing the specific activity to be 90 nmol/min/mg.

**Please note:** All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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