

## Product datasheet

# Recombinant human EGFR protein ab155639

[1 References](#) [1 Image](#)

### Overview

<b>Product name</b>	Recombinant human EGFR protein
<b>Protein length</b>	Protein fragment

### Description

<b>Nature</b>	Recombinant
<b>Source</b>	HEK 293 cells

### Amino Acid Sequence

<b>Accession</b>	<a href="#">P00533</a>
<b>Species</b>	Human
<b>Sequence</b>	<p>LEEKKVCQGTSNKLTLQGTFFEDHFLSLQRMFNNCEVVLGNLEITYVQRNY  DLSFLKTIQEVAGYVLIALNTVERIPLLENLQIIRGNMYYENSYALAVLSN  YDANKTGLKELPMRNLQEILHGAVRFSNNPALCNVESIQWRDIVSSDFLS  NMSMDFQNHGSCQKCDPSPNGSCWGAGEENCQKLTKICAQQCSGRCR  GKSPSDCCHNQCAAGCTGPRESCLVCRKFRDEATCKDTCPPMLYNPTT  YQMDVNPEGKYSFGATCVKKCPRNYVVDHGSCVRACGADSYEMEEDGVR  KCKKCEGPCRKVCNGIGIGEFKDSLSINATNIKHFKNCTSIGDLHILPV  AFRGDSFTHTPPLDPQELDILKTVKEITGFLLIQAWPENRTDLHAFENLE  IIRGRTKQHGGQFSLAVVSLNITSLGLRSLKEISDGDVIISGNKNLCYANT  INWKKLFGTSGQKTKIISNRGENSCKATGQVCHALCSPEGCWGPEPRDCV  SCRNVSRGRECVDKCNLLEGEPPREFVENSEIQCHPECLPQAMNITCTGR  GPDNCIQCAHYIDGPHCVKTCAPAGVMGENNTLVWKYADAGHVCHLCHPNC  TYGCTGPGLEGCPNGPKIPSHHHHHH</p>
<b>Molecular weight</b>	70 kDa including tags
<b>Amino acids</b>	25 to 645
<b>Tags</b>	His tag C-Terminus

### Specifications

Our [Abpromise guarantee](#) covers the use of **ab155639** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Biological activity</b>	Measured by its binding ability in a functional ELISA. Immobilized Human EGF at 10 µg/ml can bind ab155639 with a linear range of 0.5–750 ng/ml.
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<b>Applications</b>	<p>Functional Studies</p> <p>SDS-PAGE</p> <p>ELISA</p>
<b>Endotoxin level</b>	< 1.000 Eu/μg
<b>Purity</b>	>95% by SDS-PAGE . Lyophilized from 0.22 μm filtered solution
<b>Form</b>	Lyophilised
<b>Preparation and Storage</b>	
<b>Stability and Storage</b>	<p>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 7.40</p> <p>Constituents: 99% PBS, 5% Trehalose</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
<b>Reconstitution</b>	<p>1 mg It is recommended to reconstitute the lyophilized protein in sterile deionized water to a final concentration of 200 ug/ml. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Carrier protein (0.1% HSA or BSA) is strongly recommended for further dilution and long term storage</p>
<b>General Info</b>	
<b>Function</b>	<p>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.</p> <p>Isoform 2 may act as an antagonist of EGF action.</p>
<b>Tissue specificity</b>	Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.
<b>Involvement in disease</b>	<p>Lung cancer</p> <p>Inflammatory skin and bowel disease, neonatal, 2</p>
<b>Sequence similarities</b>	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.</p> <p>Contains 1 protein kinase domain.</p>
<b>Post-translational modifications</b>	<p>Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated.</p> <p>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</p>

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

Secreted and Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane. Nucleus membrane. Endosome. Endosome membrane. Nucleus. In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand. Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF).

## Images



SDS PAGE of reduced ab155639 stained overnight with Coomassie Blue. DTT-reduced Protein migrates as 110-115 kDa due to glycosylation.

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