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## Recombinant Human EGFR Fc-Fusion Protein

Cat No: Pr00117-10.9

### Product Summary

**Description:** Recombinant human EGFR Fc-Fusion Protein manufactured using [AbAb's Recombinant Platform](#)

**Protein:** Human EGFR

**Fc domain:** Human IgG1

**Structure / Form:** Disulfide-linked homodimer

**Species:** Human

**Construct Design Note(s):** The extracellular domain of EGFR has been fused to the Fc domain of human IgG1.

**Host:** HEK293

**UniProt Accession Number:** P00533

**Alternative Description:** Epidermal growth factor receptor; ErbB-1; EC 2.7.10.1; HER1; cell proliferation-inducing protein 61; cell growth inhibiting protein 40; NISBD2; PIG61; MENA; receptor tyrosine-protein kinase ErbB; Erb-B2 receptor tyrosine kinase; proto-oncogene C-ErbB

**Published Application(s):** EGFR-Fc was captured on an anti-human Fc surface and used in SPR to follow the kinetics of binding of a bispecific anti-ErbB2/anti-EGFR antibody (Strop et al, 2012). A fusion protein consisting of the first 501 amino acids of the mature EGFR sequence with a human IgG Fc domain had high affinity in competition assays for a number of EGFR ligands. It inhibited EGF-stimulated tyrosine phosphorylation of the EGFR of the lung cancer cell lines A549 and H1437 and blocked the proliferation of H1437 cells, as well as retarding tumour growth when administered to mice bearing human tumour xenografts (Adams et al, 2009). EGFR-Fc has been used in pull-down assays with protein G-Sepharose beads to determine binding of a potential activator (Kinugasa et al, 2004).

**Tested Applications(s):** ELISA; SDS-PAGE

**Activity:** EGFR is a cell surface protein which binds EGF family ligands and activates the RAS, PI3, PLC $\gamma$ -PKC and STATs signalling cascades as well as directly phosphorylating proteins such as RGS16.

**Reacts with antibody:** anti-EGFR [C225 (Cetuximab)] (Ab00279); anti-EGFR [Matuzumab] (Ab00534); anti-EGFR [528] (Ab00133); anti-EGFR [7A7] (Ab00134); anti-EGFR [EGFR1] (Ab00608); anti-EGFR domain III [h-R3 (Nimotuzumab)] (Ab00723)

### Product Form

**Purification:** Purified by affinity chromatography using Protein A.

**Supplied in:** PBS

**Shipping:** The product is shipped on blue ice. Upon receipt, store it immediately at the temperature recommended.

**Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals**

**Storage recommendation:** Recommended storage at 4°C for up to 1 month. For longer term storage store at -20°C or -80°C in appropriate sized aliquots.

### Fc-Fusion Sequence (monomer)

LEEKKVCQGTSNKLTQLGTFEDHFLSLQRMFNCEVVLGNLEITYVQRNYDLSFLKTIQEVAGYVLIANTVERIPLNL  
 QIIRGNMYEENSALAVLSNYDANKTGLKELPMRNLQEILHGAVRFSNNPALCNVESIQWRDIVSSDFLSNMSMDFQN  
 HLGSCQKCDPSCPNGSCWGAGEENCQKLTKIICAQQCSGRGCRGKSPSDCCHNQCAAGCTGPRESCLVCRKFRDE  
 ATCKDTCPLMLYNPTTYQMDVNPEGKYSFGATCVKKCPRNYVVDTHGSCVRACGADSYEMEEDGVRKCKKCEGP  
 CRKVCNGIGIGEFKDSLSINATNIKHFKNCTISISGLHILPVAFRGDSFTHTPPLDPQELDILKTVKEITGFLLIQAWPENR  
 TDLHAFENLEIIRGRTRKQHGQFSLAVVSLNITSLGLRSLKEISDGDVVISGNKNLCYANTINWKKLFGTSGQKTKIISNRGE  
 NSCKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGRECVDKCNLLEGEPRFVENSECIQCHPECLPQAMNITCT  
 GRGPDNCIQCAHYIDGPHCVKTCPAGVMGENNTLVWKYADAGHVCHLCHPNCTYGCTGPGLEGCPPTNGPKIPSGGG  
GSVPRDQGGCKPCICTVPEVSSVFIFPPKPKDVLITLTPKVTCVVVDISKDDPEVQFSWFVDDVEVHTAQTKPREEQIN  
 STFRSVSELPIMHQDWLNGKEFKCRVNSAAFPAPIEKTISKTKGRPKAPQVYTIPPPKEQMAKDKVSLTCMITNFFPEDI  
 TVEWQWNGQPAENYKNTQPIMDTDGSYFVYSKLVNQSWEAGNTFTCSVLHEGLHNHHTKSLSHSPGKHHHHH  
H

Underlined amino acids sequence include a G4S linker and 6xHis epitope tag, respectively.

**Calculated Molecular weight (dimer):** 191388 Da

**Extinction coefficient:** 192900 (calculation performed as described by Pace et al. (1995), PMID: 8563639).

## Representative Analysis and Activity Data

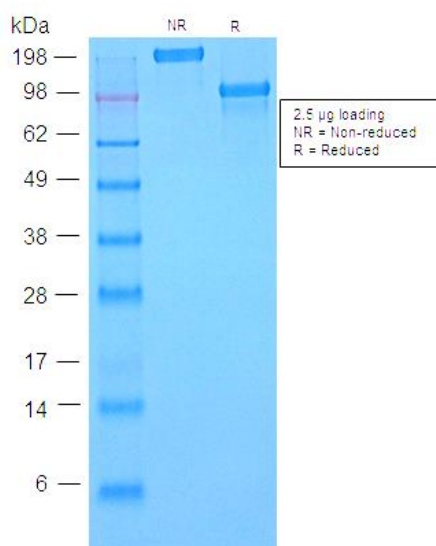
**Lot no:** T1602B05

**Concentration:** 1 mg/ml

**Endotoxin level:** <1 EU/mg as determined by LAL chromogenic endotoxin assay

**SDS PAGE Purity:** >98%

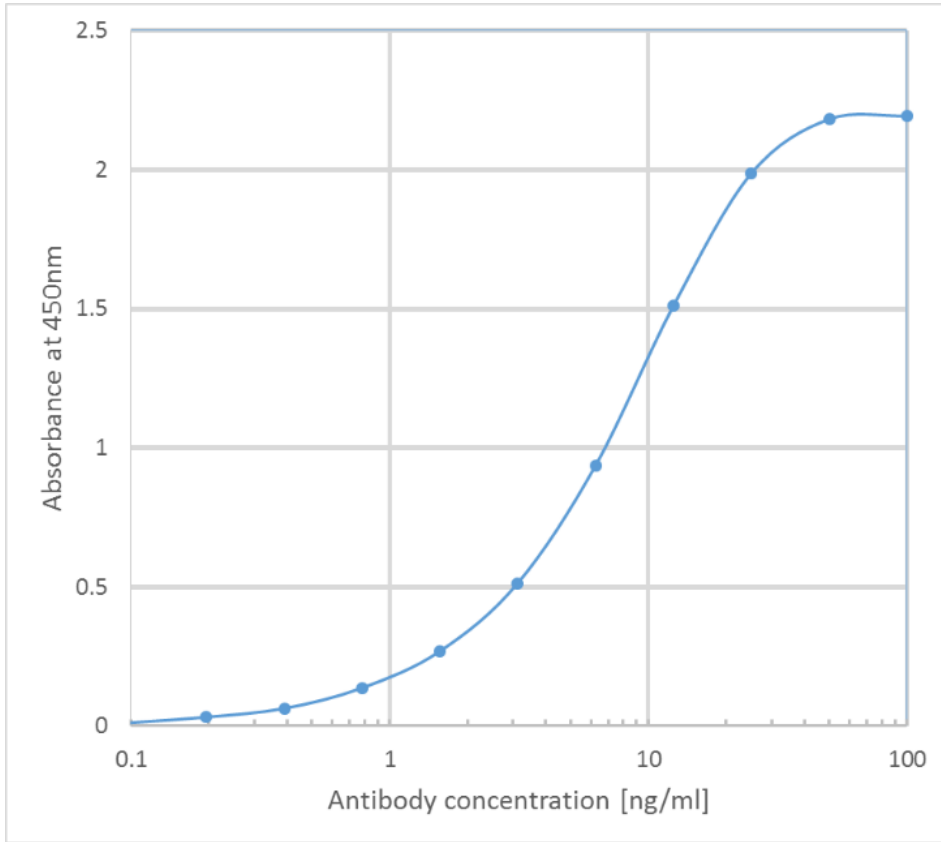
**SDS-PAGE gel image:**



Pr00117-10.9 under non-reducing and reducing (DTT) conditions resolved by SDS-PAGE and stained using Coomassie-Blue.

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**ELISA:**



**Binding curve of EGFR-Fc fusion protein to anti-EGFR antibody.** ELISA Plate coated with human EGFR-Fc (Pr00117-10.9) at a concentration of 2.0 mg/ml. A 2-fold serial dilution from 100 to 0.1 ng/ml was performed using HRP labelled cetuximab human IgG1 (Ab00279-10.0).

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