



Anti-human EGF

20160323BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	102-PA10S
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunized with highly pure (>95%) recombinant human EGF (Met1-Arg54) derived from E. coli.

Target Background

Synonyms:	Epidermal Growth Factor, Urogastrone, URG
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Epidermal growth factor (EGF) is the founding member of the EGF family that also includes TGF α , Amphiregulin (AR), Betacellulin (BTC), Epiregulin (EPR), Heparin-binding EGF-like growth factor (HBEGF), Epigen, and the Neuregulins (NRG) 1 through 6. Members of the EGF family share a structural motif, the EGF-like domain, which is characterized by three intra-molecular disulfide bonds that are formed by six similarly spaced conserved cysteine residues. All EGF family members are synthesized as type I transmembrane precursor proteins that may contain several EGF domains in the extracellular region. The mature proteins are released from the cell surface by regulated proteolysis. The 1207 amino acid (aa) human EGF precursor contains nine EGF domains and nine LDLR class B repeats. The mature protein consists of 53 aa and is generated by proteolytic excision of the EGF domain proximal to the transmembrane region. Mature human EGF shares 70% aa sequence identity with mature mouse and rat EGF. EGF is present in various body fluids, including blood, milk, urine, saliva, seminal fluid, pancreatic juice, cerebrospinal fluid, and amniotic fluid. Four ErbB (HER) family receptor tyrosine kinases including EGFR/ErbB1, ErbB2, ErbB3 and ErbB4, mediate responses to EGF family members. Biological activities ascribed to EGF include epithelial development, angiogenesis, inhibition of gastric acid secretion, fibroblast proliferation, and colony formation of epidermal cells in culture.

References

1. Harris RC et al, Exp Cell Res 284:2, 2003
2. Carpenter G and Cohen S, J Biol Chem 265:7709, 1990
3. Bell GI et al, Nucl Acids Res 14:8427, 1986
4. Carpenter G and Zenguei JG, Exp Cell Res 164:1, 1986
5. Jorissen RN et al, Exp Cell Res 284:31, 2003
6. Gamett DC et al, J Biol Chem 272:12052, 1997
7. Qian X et al, Proc Natl Acad Sci 91:1500, 1994
8. Qian X et al, J Biol Chem 274:574, 1999

Database References Antigen

Protein RefSeq:	NP_001954.2
Uniprot ID:	P01133
mRNA RefSeq:	NM_001178131

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human EGF (RT #100-008)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot: Use 1-5 µg/ml
IH/IHC: IHC (human foreskin) 5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



Anti-human EGF

Handling/Applications

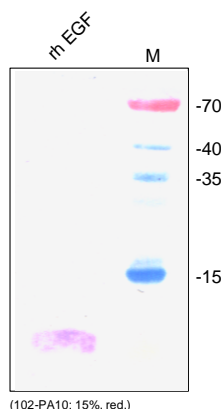


Figure 1: Western Analysis with recombinant human EGF. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions.

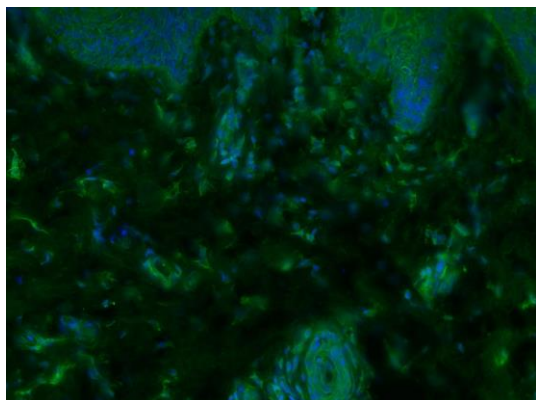


Figure 2: Immunofluorescence staining of human foreskin (cryo-section of PFA-fixed tissue) with anti-human EGF (green; 5µg/ml). Nuclei counter-stained with Dapi (blue). Specimen provided by Prof. Dr. J. Wilting and Dr. K. Buttler, Goettingen.

The experiment was performed by the research group of Prof. Dr. J. Wilting, University Göttingen, Germany.