



# Anti-Human EGF

20190806BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-P06</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** Produced from sera of rabbits pre-immunized with highly pure (>98%) recombinant human EGF. Anti-human EGF specific antibody was purified by affinity chromatography employing immobilized human EGF matrix.

## Target Background

<b>Synonyms (Target):</b>	Epidermal growth factor; EGF; URG; HOMG4; Urogastrone;
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Epidermal growth factor (EGF) is the founding member of the EGF family that also includes TGF $\alpha$ , amphiregulin (AR), betacellulin (BTC), epiregulin (EPR), heparin-binding EGF-like growth factor (HB-EGF), 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 intramolecular 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.

### Database References Target

<b>Protein RefSeq:</b>	NP_001954.2
<b>Uniprot ID:</b>	P01133
<b>mRNA RefSeq:</b>	NM_1963.4

## Product Specifications

<b>Species reactivity</b>	Human
<b>Clone/Ab feature</b>	Rabbit IgG
<b>Cross reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal Antibody
<b>Purification</b>	Antigen-affinity purified
<b>Immunogen</b>	Recombinant Human EGF
<b>Formulation</b>	lyophilized from PBS
<b>Reconstitution buffer</b>	water

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

**Stability:** The lyophilized antibody is stable for 1 month at room temperature and at least 2 years from date of receipt at -20°C. 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.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

**Neutralisation:** To yield one-half maximal inhibition [ND<sub>50</sub>] of the biological activity of Human EGF (25 µg/ml), a concentration of < 0.1 µg/ml of this antibody is required.

**Western Blot:** To detect Human EGF by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. When used in conjunction with compatible secondary reagents the detection limit for recombinant Human EGF is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

**Sandwich ELISA:** To detect Human EGF by sandwich ELISA (using 100 µl/well) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with Biotinylated Anti-Human EGF as a detection antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Human EGF.

**Immunostaining:** This antibody stained formalin-fixed, paraffin-embedded sections of human normal kidney. The recommended concentration is 5.0 µg/ml with an overnight incubation at 4°C. An HRP-labeled polymer detection system was used with a DAB chromogen. Heat induced antigen retrieval with a pH 6.0 sodium citrate is recommended. Optimal concentrations and conditions may vary.

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