Anti-Rat EGF

20150223ML

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**104-P13**
Size:	100 µg
Lot. No.:	According to product label

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

Target Background

Synonyms (Target):	Epidermal growth factor; Egf

Epidermal growth factor (EGF) is the founding member of the EGF family that also includes TGFα, 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 1133 amino acid (aa) rat 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 rat EGF shares 70% and 77% aa sequence identity with mature human and mouse EGF, respectively. 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

Protein RefSeq:	NP_036974.1
Uniprot ID:	P07522
mRNA RefSeq:	NM_012842.1

Product Specifications

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

Reconstitution: Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

Stability: The lyophilized antibody is stable for 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

Neutralization: To yield one-half maximal inhibition [ND_{50}] of the biological activity of Rat EGF (0.1 ng/ml), a concentration of 0.1 µg/ml of this antibody is required.

ELISA:
Indirect:To detect Rat EGF by indirect ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Rat EGF.
Sandwich:To detect Rat EGF by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with an appropriate secondary conjugated antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Rat EGF.

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

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