Anti-EGF antibody, mouse monoclonal (Type H), neutralizing

Product code	71-505
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from hybridoma cell culture medium
Immunogen	Purified EGF from human urine
Isotype	mouse IgG1κ
Reactivity	human EGF, Type H = high affinity(Kd=1.7x10^{-10}) for human EGF; has different epitope compared with Anti-human EGF, Type L (71-507); dose not react with mouse EGF or human TGF-α.
Special notes	
Application	1. Western blotting: (1µg/ml) Under non-reduving conditions. 2. Biological neutralization of EGF: 2 µg/ml of antibody (Type H) effects 50% inhibition of ^{3}H-thymidine incorporation by BALB/3T3-3K cells in the presence of 0.5 ng/ml human EGF. Under the same conditions, 10µg/ml of antibody effects 100% inhibition of ^{3}H-thymidine incorporations. (Ref.1)
Background	Epidermal growth factor (EGF) has a profound effect on the differentiation of specific cells in vivo and is a potent mitogenic factor for a variety of cultured cells of both ectodermal and mesodermal origin. The EGF precursor is believed to exist as a membrane-bound molecule which is proteolytically cleaved to generate the 53-amino acid peptide hormone that stimulates cells to divide.
Data Link	UniProtKB P01133 (EGF_Human)

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Data Images: 71-505 Anti-EGF antibody, mouse monoclonal (Type H), neutralizing

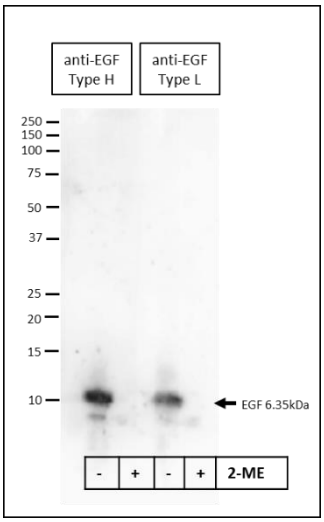

Fig.1 Western Blot of EGF

Applied sample; 0.1μg of recombinant EGF under non-reducing conditions.

Primary antibody; 1μg/ml of anti-EGF antibody

Recommended using 71-505 anti-EGF antibody (Type H)

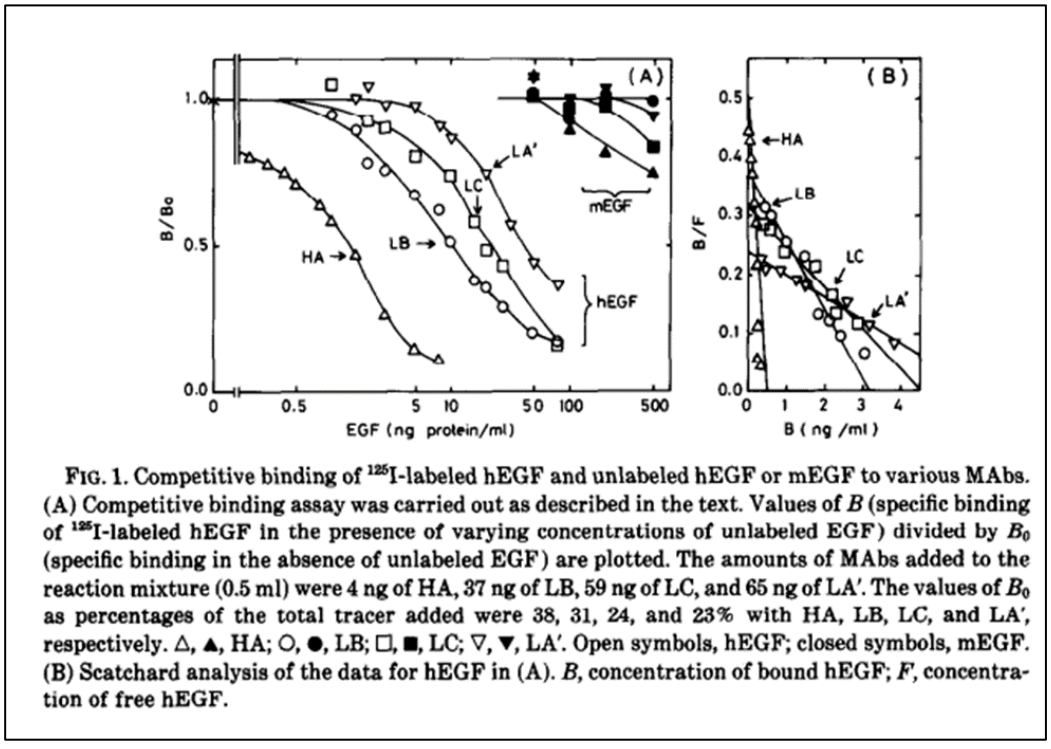

FIG. 1. Competitive binding of ^{125}I-labeled hEGF and unlabeled hEGF or mEGF to various MAbs. (A) Competitive binding assay was carried out as described in the text. Values of *B* (specific binding of ^{125}I-labeled hEGF in the presence of varying concentrations of unlabeled EGF) divided by B_0 (specific binding in the absence of unlabeled EGF) are plotted. The amounts of MAbs added to the reaction mixture (0.5 ml) were 4 ng of HA, 37 ng of LB, 59 ng of LC, and 65 ng of LA'. The values of B_0 as percentages of the total tracer added were 38, 31, 24, and 23% with HA, LB, LC, and LA', respectively. △, ▲, HA; ○, ●, LB; □, ■, LC; ▽, ▼, LA'. Open symbols, hEGF; closed symbols, mEGF. (B) Scatchard analysis of the data for hEGF in (A). *B*, concentration of bound hEGF; *F*, concentration of free hEGF.

Fig2. Competitive binding of 125I I-labeled hEGF and unlabeled hEGF (Ref.1)

71-505 Anti-EGF antibody, mouse monoclonal (Type H); HA

71-507 Anti-EGF antibody, mouse monoclonal (Type L); LB

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Related product:

71-507 Anti-EGF antibody, mouse monoclonal (Type L), neutralizing

Reference: This product has been used in the following publications.

1. Yoshitake Y, Nishikawa K. Production of monoclonal antibodies with specificity for different epitopes on the human epidermal growth factor molecule. Arch Biochem Biophys. 1988 Jun;263(2):437-46. PMID: 2454080 **Neutralization**

2. Nishikawa K, *et al.* Derivation of monoclonal antibody to human epidermal growth factor. Methods Enzymol. 1987:146:11-22. PMID: 3500383

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