

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human EGF in direct ELISAs. Detects human EGF and rat EGF in Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) HB-EGF or rhTGF- α is observed. In Western blots, no cross-reactivity with recombinant mouse EGF is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 10825
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human EGF
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

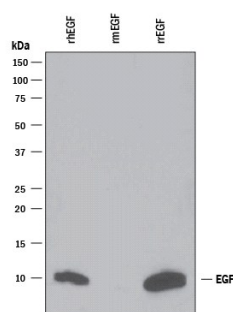
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	See Below
Immunohistochemistry	8-25 μ g/mL	See Below
Neutralization	Measured by its ability to neutralize EGF-induced proliferation in the Balb/3T3 mouse embryonic fibroblast cell line. The Neutralization Dose (ND ₅₀) is typically 0.05-0.1 μ g/mL in the presence of 2 ng/mL Recombinant Human EGF.	

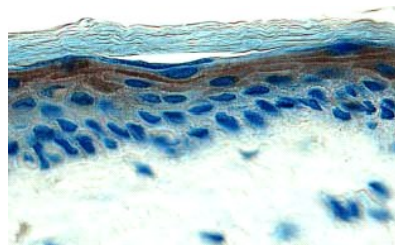
DATA

Western Blot



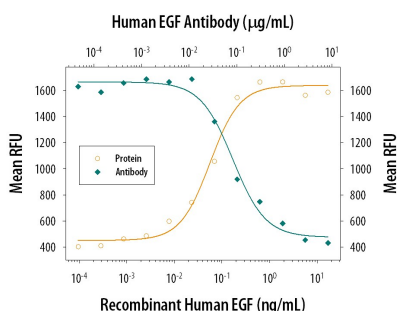
Detection of Recombinant Human and Rat EGF by Western Blot. Western blot shows 100 ng of Recombinant Human EGF (Catalog # 236-EG), Recombinant Mouse EGF (Catalog # 2028-EG) and Recombinant Rat EGF (Catalog # 3214-EG). PVDF Membrane was probed with 1 μ g/mL of Mouse Anti-Human EGF Monoclonal Antibody (Catalog # MAB236) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for EGF at approximately 10 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 3.

Immunohistochemistry



EGF in Human Skin. EGF was detected in immersion fixed paraffin-embedded sections of human skin using 25 μ g/mL Mouse Anti-Human EGF Monoclonal Antibody (Catalog # MAB236) overnight at 4 $^{\circ}$ C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of keratinocytes in the stratum granulosum in epidermis. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Neutralization



Cell Proliferation Induced by EGF and Neutralization by Human EGF Antibody. Recombinant Human EGF (Catalog # 236-EG) stimulates proliferation in the Balb/3T3 mouse embryonic fibroblast cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human EGF (2 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human EGF Monoclonal Antibody (Catalog # MAB236). The ND₅₀ is typically 0.05-0.1 μ g/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

EGF is the prototypic member of a family of growth factors that are characterized by the presence of EGF like domains and activate members of the EGF receptor family. Proteolytic cleavage of a membrane-bound precursor releases mature soluble EGF which interacts with the EGF R to promote proliferation and differentiation of mesenchymal and epithelial cells.