**BACKGROUND**

Epidermal growth factor (EGF) is an acid- and heat-stable 53 amino acid protein originally found in rodents and humans. It has been shown to be a potent mitogen for a variety of cell types both *in vivo* and *in vitro*. EGF binds to the EGF receptor on the surface of cells and mediates intracellular phosphorylation of the receptor on tyrosine residues. It has been detected in nearly all body fluids, such as urine (urogastrone), saliva, milk and platelet-rich plasma. EGF, TGF-alpha and vaccinia virus growth factor exhibit 30-40% amino acid homology. Several additional members of the EGF/TGF family have been described; these include Cripto, Amphiregulin and the heparin-binding EGF-like growth factor. Amphiregulin and the heparin-binding EGF-like growth factor both bind to the EGF receptor.

**CHROMOSOMAL LOCATION**

Genetic locus: EGF (human) mapping to 4q25; Egf (mouse) mapping to 3 G3.

**SOURCE**

EGF (D-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 993-1021 at the C-terminus of EGF of rat origin.

**PRODUCT**

Each vial contains 200 μg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. EGF (D-5) is available conjugated to agarose (sc-374255 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374255 HRP), 200 μg/ml, for WB, IHC(P); and ELISA; to either phycoerythrin (sc-374255 PE), fluorescein (sc-374255 FITC), Alexa Fluor® 488 (sc-374255 AF488), Alexa Fluor® 546 (sc-374255 AF546), Alexa Fluor® 594 (sc-374255 AF594) or Alexa Fluor® 647 (sc-374255 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374255 AF680) or Alexa Fluor® 790 (sc-374255 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM. Blocking peptide available for competition studies, sc-374255 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

EGF (D-5) is recommended for detection of precursor and mature EGF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EGF siRNA (h): sc-39416, EGF siRNA (m): sc-39417, EGF shRNA Plasmid (h): sc-39416-SH, EGF shRNA Plasmid (m): sc-39417-SH, EGF shRNA (h) Lentiviral Particles: sc-39416-V and EGF shRNA (m) Lentiviral Particles: sc-39417-V.

Molecular Weight of EGF precursor: 160 kDa.

Molecular Weight of mature EGF: 6 kDa.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

![Western blot analysis of EGF expression in human platelet extract.](image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.