HB-EGF (H-1): sc-365182

**BACKGROUND**

Heparin binding epidermal-like growth factor (HB-EGF), a member of the EGF family of mitogens, binds to the EGF receptor (EGFR) and to heparin sulfate proteoglycans on the cell surface. HB-EGF was originally isolated from medium conditioned by the growth of the human histocytic lymphoma cell U-937 on the basis of its heparin-binding ability and its mitogenic activity for Balb-3T3 fibroblasts. The HB-EGF gene encodes a 208 amino acid precursor containing a signal peptide and transmembrane domain. Mature HB-EGF is a soluble protein 86 amino acids in length and results from the enzymatic cleavage of the membrane-bound precursor. The membrane-bound form of HB-EGF has been identified as the diphtheria toxin receptor. Preincubation of vero cells with phorbol 12-myristate 13-acetate (PMA) induces the proteolytic cleavage of HB-EGF outside the membrane anchor.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HBEGF (human) mapping to 5q31.3; Hbegf (mouse) mapping to 18 B2.

**SOURCE**

HB-EGF (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 183-213 within a C-terminal cytoplasmic domain of HB-EGF of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG₂κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HB-EGF (H-1) is available conjugated to agarose (sc-365182 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365182 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365182 PE), fluorescein sodium azide and 0.1% gelatin.


Molecular Weight of HB-EGF: 22 kDa.

**APPLICATIONS**

HB-EGF (H-1) is recommended for detection of precursor HB-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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Lumino Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGx BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

HB-EGF (H-1): sc-365182: Western blot analysis of HB-EGF expression in RAW 264.7 (A); NIH/3T3 (B); TK-1 (D) and EOC 20 (D) whole cell lysates.

HB-EGF (H-1): sc-365182: Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A), Immunoperoxidase staining of formalin fixed, paraffin-embedded human squamous tissue showing membrane and cytoplasmic staining of squamous epithelial cells (B).

**STORAGE**

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

**RESEARCH USE**

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