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 histiocytic 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.

CHROMOSOMAL LOCATION

Genetic locus: HBEGF (human) mapping to 5q31.3.

SOURCE

HB-EGF (G-11) is a mouse monoclonal antibody raised against amino acids 121-208 of mature HB-EGF of human origin.

PRODUCT

Each vial contains 200 µg IgG2α kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HB-EGF (G-11) is available conjugated to agarose (sc-74441 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74441 HRP), 200 µg/ml, for WB, IHQ10 and ELISA; to either phycoerythrin (sc-74441 FITC), Alexa Fluor® 488 (sc-74441 AF488), Alexa Fluor® 546 (sc-74441 AF546), Alexa Fluor® 594 (sc-74441 AF594) or Alexa Fluor® 647 (sc-74441 AF647), 200 µg/ml, for WB (RGB), IF, IHQ10 and FCM; and to either Alexa Fluor® 680 (sc-74441 AF680) or Alexa Fluor® 790 (sc-74441 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

HB-EGF (G-11) is recommended for detection of precursor and mature HB-EGF of 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)], ELISA (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 HB-EGF siRNA (h): sc-39420, HB-EGF shRNA Plasmid (h): sc-39420-SH and HB-EGF shRNA (h) Lentiviral Particles: sc-39420-V.

Molecular Weight of HB-EGF: 22 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

DATA


SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

SELECTED REFERENCES