

Epiregulin (C-9): sc-376284

BACKGROUND

Epiregulin (EPR, EREG), is an epidermal growth factor (EGF)-related growth regulating peptide which exhibits bifunctional properties in the regulation of cell growth. Epiregulin activates two members of the ErbB family of receptor tyrosine kinases, epidermal growth factor receptor (EGFR) and ErbB4. Epiregulin is a potent vascular smooth muscle cell-derived mitogen induced by Angiotensin II, endothelin-1 and thrombin. Epiregulin acts as an autocrine growth factor in human epidermal keratinocytes and is part of auto- and cross-induction mechanisms involving HB-EGF, amphiregulin and TGF α . Epiregulin is upregulated in pancreatic cancer and stimulates pancreatic cancer cell growth.

CHROMOSOMAL LOCATION

Genetic locus: Ereg (mouse) mapping to 5 E1.

SOURCE

Epiregulin (C-9) is a mouse monoclonal antibody raised against amino acids 1-162 representing full length Epiregulin of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Epiregulin (C-9) is available conjugated to agarose (sc-376284 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376284 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376284 PE), fluorescein (sc-376284 FITC), Alexa Fluor® 488 (sc-376284 AF488), Alexa Fluor® 546 (sc-376284 AF546), Alexa Fluor® 594 (sc-376284 AF594) or Alexa Fluor® 647 (sc-376284 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376284 AF680) or Alexa Fluor® 790 (sc-376284 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Epiregulin (C-9) is recommended for detection of Epiregulin of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for Epiregulin siRNA (m): sc-39419, Epiregulin shRNA Plasmid (m): sc-39419-SH and Epiregulin shRNA (m) Lentiviral Particles: sc-39419-V.

Molecular Weight of mature Epiregulin: 27 kDa.

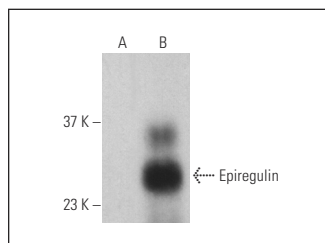
Molecular Weight of secreted Epiregulin: 6 kDa.

Positive Controls: Epiregulin (m): 293T Lysate: sc-120077.

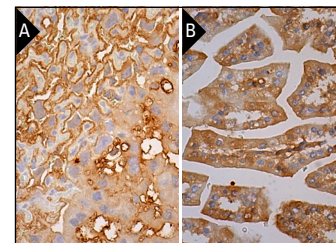
RECOMMENDED SUPPORT REAGENTS

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 Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Epiregulin (C-9) HRP: sc-376284 HRP. Direct western blot analysis of Epiregulin expression in non-transfected: sc-117752 (A) and mouse Epiregulin transfected: sc-120077 (B) 293T whole cell lysates.



Epiregulin (C-9): sc-376284. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse placenta tissue showing membrane staining of trophoblastic cells and cytoplasmic staining of decidual cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse fetal digestive track tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Bauer, A.K., et al. 2017. Epiregulin is required for lung tumor promotion in a murine two-stage carcinogenesis model. *Mol. Carcinog.* 56: 94-105.
- Mapes, J., et al. 2018. Aberrantly high expression of the CUB and zona pellucida-like domain-containing protein 1 (CUZD1) in mammary epithelium leads to breast tumorigenesis. *J. Biol. Chem.* 293: 2850-2864.
- Li, M.D., et al. 2018. Enhanced drug photosafety by interchromophoric interaction owing to intramolecular charge separation. *Chemistry* 24: 6654-6659.
- Cao, Y., et al. 2020. Epiregulin promotes osteogenic differentiation and inhibits neurogenic *trans*-differentiation of adipose-derived mesenchymal stem cells via MAPKs pathway. *Cell Biol. Int.* 44: 1046-1058.
- Song, N.J., et al. 2022. Epiregulin as an alternative ligand for leptin receptor alleviates glucose intolerance without change in obesity. *Cells* 11: 425.
- Wang, Y.C., et al. 2022. Non-enzymatic role of SOD1 in intestinal stem cell growth. *Cell Death Dis.* 13: 882.

STORAGE

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