

Amphiregulin (H-155): sc-25436

BACKGROUND

Epidermal growth factor (EGF) family member Amphiregulin was initially characterized as a schwannoma-derived growth factor (SDGF) that was expressed in response to androgen in the SC2G murine cell line. Amphiregulin has subsequently been characterized as an important growth factor for normal human keratinocyte proliferation. Amphiregulin is produced and secreted by keratinocytes and acts as an autocrine growth factor. Amphiregulin binds ErbB1 which is essential for epithelial development in the skin, lung and gastrointestinal tract. Withdrawal of Amphiregulin has been shown to result in down-regulation of telomerase activity in human keratinocytes and this suggests that Amphiregulin plays a role in cell senescence.

REFERENCES

1. Cook, P.W., et al. 1991. A heparin sulfate-regulated human keratinocyte autocrine factor is similar or identical to Amphiregulin. *Mol. Cell. Biol.* 11: 2547-2557.
2. Sonoda, H., et al. 1992. Androgen-responsive expression and mitogenic activity of schwannoma-derived growth factor on an androgen-dependent Shionogi mouse mammary carcinoma cell line. *Biochem. Biophys. Res. Commun.* 185: 103-109.
3. Elenius, K., et al. 1997. Activation of HER4 by heparin-binding EGF-like growth factor stimulates chemotaxis but not proliferation. *EMBO J.* 16: 1268-1278.
4. Shirakata, Y., et al. 2000. Epiregulin, a novel member of the epidermal growth factor family, is an autocrine growth factor in normal human keratinocytes. *Biol. Chem.* 275: 5748-5753.

CHROMOSOMAL LOCATION

Genetic locus: AREG (human) mapping to 4q13.3; Areg (mouse) mapping to 5 E1.

SOURCE

Amphiregulin (H-155) is a rabbit polyclonal antibody raised against amino acids 1-155 of Amphiregulin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

PROTOCOLS

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

APPLICATIONS

Amphiregulin (H-155) is recommended for detection of Amphiregulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Amphiregulin (H-155) is also recommended for detection of Amphiregulin in additional species, including equine.

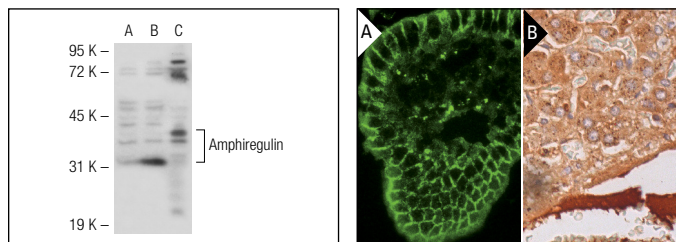
Suitable for use as control antibody for Amphiregulin siRNA (h): sc-39412, Amphiregulin siRNA (m): sc-39413, Amphiregulin shRNA Plasmid (h): sc-39412-SH, Amphiregulin shRNA Plasmid (m): sc-39413-SH, Amphiregulin shRNA (h) Lentiviral Particles: sc-39412-V and Amphiregulin shRNA (m) Lentiviral Particles: sc-39413-V.

Molecular Weight of Amphiregulin precursor: 50 kDa.

Molecular Weight of mature Amphiregulin: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or Amphiregulin (m): 293T Lysate: sc-118381.

DATA



Amphiregulin (H-155): sc-25436. Western blot analysis of Amphiregulin expression in non-transfected 293T: sc-117752 (A), mouse Amphiregulin transfected 293T: sc-118381 (B) and HeLa (C) whole cell lysates.

Amphiregulin (H-155): sc-25436. Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Melnick, M., et al. 2012. Human cytomegalovirus and mucoepidermoid carcinoma of salivary glands: cell-specific localization of active viral and oncogenic signaling proteins is confirmatory of a causal relationship. *Exp. Mol. Pathol.* 92: 118-125.
2. Yang, L., et al. 2013. Prolidase directly binds and activates epidermal growth factor receptor and stimulates downstream signaling. *J. Biol. Chem.* 288: 2365-2375.