

Amphiregulin (N-20): sc-5794

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

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5. Matsui, M., Miyasaka, J., Hamada, K., Ogawa, Y., Hiramoto, M., Fujimori, R. and Aioi, A. 2000. Influence of aging and cell senescence on telomerase activity in keratinocytes. *J. Dermatol. Sci.* 22: 80-87.

CHROMOSOMAL LOCATION

Genetic locus: AREG/AREGB (human) mapping to 4q13.3.

SOURCE

Amphiregulin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-5794 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Amphiregulin (N-20) is recommended for detection of precursor and mature Amphiregulin; cross reactive with Amphiregulin B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Amphiregulin (N-20) is also recommended for detection of precursor and mature Amphiregulin; cross reactive with Amphiregulin B in additional species, including canine, bovine and porcine.

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

Molecular Weight of Smurf1 precursor: 50 kDa.

Molecular Weight of mature Smurf1: 43 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or JEG-3 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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