

ASCL4 (C-13): sc-167142

BACKGROUND

Members of the myogenic determination family are basic helix-loop-helix (bHLH) proteins that can be separated into two classes, both of which work together to activate DNA transcription. Class A proteins include the ubiquitously expressed E-box binding factors, namely E2A, ITF-2 and HEB, while class B proteins, such as MyoD, myogenin and Neuro D (BETA2), are transiently expressed and exhibit a much more limited tissue distribution. Working in opposition to these positively acting factors are a specialized group of bHLH transcription factors that functions as dominant negative regulators and are involved in cell lineage determination and differentiation. ASCL4 (achaete-scute homolog 4), also known as HASH4 or BHLHA44 (class A basic helix-loop-helix protein 44), is a 172 amino acid protein that localizes to nucleus and contains one bHLH domain. ASCL4 is expressed in skin, with a seven-fold increase in fetal skin compared to adult skin, and may function as a transcriptional regulator in skin development. ASCL4 is weakly expressed in fetal lung, aorta and brain, as well as adult stomach, kidney, ovary and breast. The gene that encodes ASCL4 maps to human chromosome 12q23.3.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: ASCL4 (human) mapping to 12q23.3.

SOURCE

ASCL4 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ASCL4 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-167142 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ASCL4 (C-13) is recommended for detection of ASCL4 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); non cross-reactive with other ASCL family members.

Suitable for use as control antibody for ASCL4 siRNA (h): sc-95686, ASCL4 shRNA Plasmid (h): sc-95686-SH and ASCL4 shRNA (h) Lentiviral Particles: sc-95686-V.

Molecular Weight of ASCL4: 19 kDa.

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.

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.