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ASCL1 (Achaete-scute homolog 1) Antibody (C-term D220)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2019d

Product Information

Application	WB, E
Primary Accession	P50553
Other Accession	Q90259, P19359, Q02067, NP_004307
Reactivity	Human
Predicted	Mouse, Rat, Zebrafish, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10320
Calculated MW	25454

Additional Information

Gene ID	429
Other Names	Achaete-scute homolog 1, ASH-1, hASH1, Class A basic helix-loop-helix protein 46, bHLHa46, ASCL1, ASH1, BHLHA46, HASH1
Target/Specificity	This ASCL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human ASCL1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ASCL1 (Achaete-scute homolog 1) Antibody (C-term D220) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ASCL1 (HGNC:738)
Function	Transcription factor that plays a key role in neuronal differentiation: acts as

a pioneer transcription factor, accessing closed chromatin to allow other factors to bind and activate neural pathways. Directly binds the E box motif (5'-CANNTG-3') on promoters and promotes transcription of neuronal genes. The combination of three transcription factors, ASCL1, POU3F2/BRN2 and MYT1L, is sufficient to reprogram fibroblasts and other somatic cells into induced neuronal (iN) cells in vitro. Plays a role at early stages of development of specific neural lineages in most regions of the CNS, and of several lineages in the PNS. Essential for the generation of olfactory and autonomic neurons. Acts synergistically with FOXN4 to specify the identity of V2b neurons rather than V2a from bipotential p2 progenitors during spinal cord neurogenesis, probably through DLL4-NOTCH signaling activation. Involved in the regulation of neuroendocrine cell development in the glandular stomach (By similarity).

Cellular Location Nucleus {ECO:0000250|UniProtKB:Q02067}.

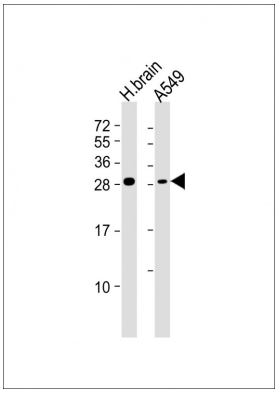
Background

ACSL1, alternatively titled Hash1 or Mash1, is a member of the basic helix-loop-helix (BHLH) family of transcription factors. It activates transcription by binding to the E box (5'-CANNTG-3'). Dimerization with other BHLH proteins is required for efficient DNA binding. ACSL1 plays a role in the neuronal commitment and differentiation and in the generation of olfactory and autonomic neurons. The protein is highly expressed in medullary thyroid cancer and small cell lung cancer and may be a useful marker for these cancers. The presence of a CAG repeat in the gene suggests it may also play a role in tumor formation.

References

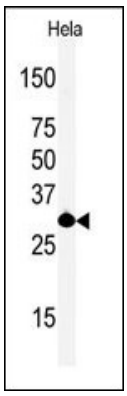
Sriuranpong, V., et al., Mol. Cell. Biol. 22(9):3129-3139 (2002).
Westerman, B.A., et al., Clin. Cancer Res. 8(4):1082-1086 (2002).
Chen, H., et al., Cell Growth Differ. 8(6):677-686 (1997).
Borges, M., et al., Nature 386(6627):852-855 (1997).
Renault, B., et al., Genomics 30(1):81-83 (1995).

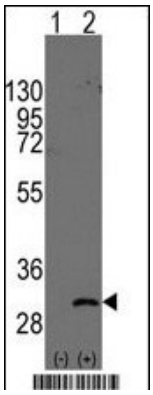
Images



All lanes : Anti-Ascl1 (Human C-term) at 1:1000 dilution Lane 1: human brain lysate Lane 2: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of anti-Ascl1 Antibody (C-term D220) (Cat. #AP2019d) in Hela cell line lysates (35ug/lane). Ascl1(arrow) was detected using the purified Pab (1:160 dilution).





Western blot analysis of Ascl1 (arrow) using rabbit polyclonal Ascl1 Antibody (Human C-term) (Cat.#AP2019d). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the Ascl1 gene (Lane 2) (Origene Technologies).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.