

BSCL2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10112a

Product Information

Application IHC-P, WB, E Primary Accession Q96G97

Other Accession <u>05E9P6, NP 001116427.1, NP 001124174.1, NP 116056.3</u>

Reactivity Human, Rat, Mouse

Predicted Bovine
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB19045
Calculated MW 44392
Antigen Region 78-107

Additional Information

Gene ID 26580

Other Names Seipin, Bernardinelli-Seip congenital lipodystrophy type 2 protein, BSCL2

Target/Specificity This BSCL2 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 78-107 amino acids from the

N-terminal region of human BSCL2.

Dilution IHC-P~~1:100~500 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.

PrecautionsBSCL2 Antibody (N-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

Protein Information

Name BSCL2

Function Plays a crucial role in the formation of lipid droplets (LDs) which are storage

organelles at the center of lipid and energy homeostasis (PubMed: 19278620, PubMed: 21533227, PubMed: 30293840, PubMed: 31708432). In association

with LDAF1, defines the sites of LD formation in the ER (PubMed:31708432). Also required for growth and maturation of small nascent LDs into larger mature LDs (PubMed:27564575). Mediates the formation and/or stabilization of endoplasmic reticulum-lipid droplets (ER-LD) contacts, facilitating protein and lipid delivery from the ER into growing LDs (PubMed:27879284, PubMed:31178403). Regulates the maturation of ZFYVE1- positive nascent LDs and the function of the RAB18-ZFYVE1 complex in mediating the formation of ER-LD contacts (PubMed:30970241). Binds anionic phospholipids including phosphatidic acid (PubMed:30293840). Plays an important role in the differentiation and development of adipocytes (By similarity).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Lipid droplet Note=Localizes at endoplasmic reticulum-lipid droplets (ER-LD) contact sites.

Tissue Location

Expressed in motor neurons in the spinal cord and cortical neurons in the frontal lobe (at protein level). Highly expressed in brain, testis and adipose tissue

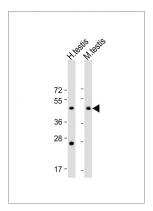
Background

This gene encodes protein seipin, which is located in the endoplasmic reticulum and may be important for lipid droplet morphology. Mutations in this gene have been associated with congenital generalized lipodystrophy type 2 or Berardinelli-Seip syndrome, a rare autosomal recessive disease characterized by a near absence of adipose tissue and severe insulin resistance. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

References

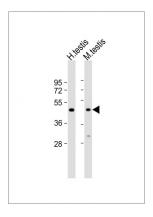
Rakocevic-Stojanovic, V., et al. J. Neurol. Sci. 296 (1-2), 107-109 (2010): Luigetti, M., et al. Muscle Nerve 42(3):448-451(2010)
Nishiyama, A., et al. Pediatr Int 51(6):775-779(2009)
Wu, Y.R., et al. J. Neurol. Neurosurg. Psychiatr. 80(10):1180-1181(2009)
Chen, W., et al. Endocrinology 150(10):4552-4561(2009)

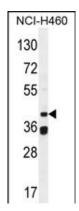
Images



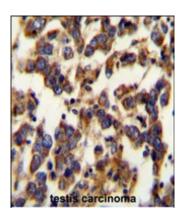
All lanes: Anti-BSCL2 Antibody (N-term) at 1:2000 dilution Lane 1: Human testis lysate Lane 2: Mouse testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes: Anti-BSCL2 Antibody (N-term) at 1:2000 dilution Lane 1: Human testis lysate Lane 2: Mouse testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





BSCL2 Antibody (N-term) (Cat. #AP10112a) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the BSCL2 antibody detected the BSCL2 protein (arrow).



BSCL2 Antibody (N-term) (Cat. #AP10112a) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the BSCL2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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