

SEC14L2/L3/L4 (E-10): sc-365420

BACKGROUND

The monomeric, SEC14L2 (SEC14-like protein 2), also known as supernatant protein factor (SPF), α -tocopherol-associated protein or squalene transfer protein, functions as a carrier protein transferring tocopherols, as a transcriptional activator via its interaction with α -tocopherol and as a stimulator of conversion of microsomal squalene-2,3-oxide into lanosterol in cholesterol biosynthesis. High levels of SEC14L2 are expressed in liver, brain, intestine and prostate. Subcellular localization of SEC14L2 is cytoplasmic, but in the presence of α -tocopherol, SEC14L2 localizes in the nucleus. Activity of SEC14L2 depends on posttranslational modifications, specifically phosphorylation by PKA and PKC. SEC14L3 and SEC14L4 both contain one CRAL-TRIO domain and one GOLD domain and may be involved in the transport of hydrophobic ligands.

REFERENCES

1. Caras, I.W. and Bloch, K. 1979. Effects of a supernatant protein activator on microsomal squalene-2,3-oxide-lanosterol cyclase. *J. Biol. Chem.* 254: 11816-11821.
2. Friedlander, E.J., et al. 1980. Supernatant protein factor facilitates inter-membrane transfer of squalene. *J. Biol. Chem.* 255: 8042-8045.
3. Chin, J. and Bloch, K. 1984. Role of supernatant protein factor and anionic phospholipid in squalene uptake and conversion by microsomes. *J. Biol. Chem.* 259: 11735-11738.

CHROMOSOMAL LOCATION

Genetic locus: SEC14L2/SEC14L3/SEC14L4 (human) mapping to 22q12.2; Sec14l2/Sec14l3/Sec14l4 (mouse) mapping to 11 A1.

SOURCE

SEC14L2/L3/L4 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 26-55 near the N-terminus of SEC14L2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SEC14L2/L3/L4 (E-10) is available conjugated to agarose (sc-365420 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365420 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365420 PE), fluorescein (sc-365420 FITC), Alexa Fluor[®] 488 (sc-365420 AF488), Alexa Fluor[®] 546 (sc-365420 AF546), Alexa Fluor[®] 594 (sc-365420 AF594) or Alexa Fluor[®] 647 (sc-365420 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365420 AF680) or Alexa Fluor[®] 790 (sc-365420 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365420 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

SEC14L2/L3/L4 (E-10) is recommended for detection of SEC14L2, SEC14L3 and SEC14L4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

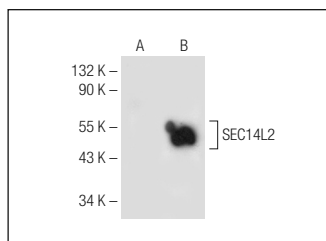
Molecular Weight of SEC14L2/L3/L4: 47 kDa.

Positive Controls: rat liver extract: sc-2395, mouse liver extract: sc-2256 or SEC14L2 (m): 293T Lysate: sc-110147.

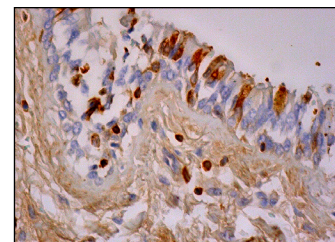
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SEC14L2/L3/L4 (E-10): sc-365420. Western blot analysis of SEC14L2 expression in non-transfected: sc-117752 (A) and mouse SEC14L2 transfected: sc-110147 (B) 293T whole cell lysates.



SEC14L2/L3/L4 (E-10): sc-365420. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells and inflammatory cells.

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 for detailed protocols and support products.

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