SANTA CRUZ BIOTECHNOLOGY, INC.

CEL (H-12): sc-390128

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Carboxyl ester lipase (CEL), previously named cholesterol esterase or bile salt-stimulated lipase, hydrolyzes cholesteryl esters, phospholipids, lyso-phospholipids ceramide and tri-, di- and mono-acylglycerols. CEL contains an active site catalytic triad of serine-histidine-aspartate, which is centrally located within the enzyme structure. Production of CEL primarily occurs in the pancreas and lactating mammary gland, but it is also expressed in liver, macro-phages and in the vessel wall. CEL has a wide substrate reactivity, and may perform multiple functions in lipid and lipoprotein metabolism and atherosclerosis. CEL also participates in chylomicron assembly and secre-tion, which is mediated by its ceramide hydrolytic activity.

REFERENCES

1. Colwell, N.S., et al. 1993. Molecular cloning and expression of rabbit pancreatic cholesterol esterase. Biochim. Biophys. Acta 1172: 175-180.
2. Bengtsson, S.H., et al. 2002. Transcriptional regulation of the human carboxyl ester lipase gene in THP-1 monocytes: an E-box required for activation binds upstream stimulatory factors 1 and 2. Biochem. J. 365: 481-488.
3. Higuchi, S., et al. 2002. Characterization of a VNTR polymorphism in the coding region of the CEL gene. J. Hum. Genet. 47: 213-215.
4. Hui, D.Y., et al. 2002. Carboxyl ester lipase: structure-function relationship and physiological role in lipoprotein metabolism and atherosclerosis. J. Lipid Res. 43: 2017-2030.
5. Kirby, R.J., et al. 2002. Bile salt-stimulated carboxyl ester lipase influences lipoprotein assembly and secretion in intestine: a process mediated via ceramide hydrolysis. J. Biol. Chem. 277: 4104-4109.

CHROMOSOMAL LOCATION

Genetic locus: CEL (human) mapping to 9q34.2; Cel (mouse) mapping to 2 A3.

SOURCE

CEL (H-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 489-512 near the C-terminus of CEL of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEL (H-12) is available conjugated to agarose (sc-390128 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390128 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390128 PE), fluorescein (sc-390128 FITC), Alexa Fluor® 488 (sc-390128 AF488), Alexa Fluor® 546 (sc-390128 AF546), Alexa Fluor® 594 (sc-390128 AF594) or Alexa Fluor® 647 (sc-390128 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390128 AF680) or Alexa Fluor® 790 (sc-390128 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390128 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CEL (H-12) is recommended for detection of CEL long and short isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for CEL siRNA (h): sc-44447, CEL siRNA (m): sc-44448, CEL shRNA Plasmid (h): sc-44447-SH, CEL shRNA Plasmid (m): sc-44448-SH, CEL shRNA (h) Lentiviral Particles: sc-44447-V and CEL shRNA (m) Lentiviral Particles: sc-44448-V.

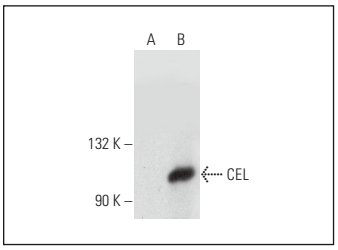
Molecular Weight of CEL: 74 kDa.

Positive Controls: CEL (h): 293T Lysate: sc-115618, rat pancreas extract: sc-364806 or mouse pancreas extract: sc-364244.

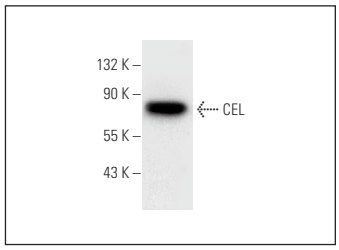
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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) Immunopre-cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CEL (H-12): sc-390128. Western blot analysis of CEL expression in non-transfected: sc-117752 (**A**) and human CEL transfected: sc-115618 (**B**) 293T whole cell lysates.



CEL (H-12): sc-390128. Western blot analysis of CEL expression in rat pancreas tissue extract.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

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