

Ces1d (m): 293T Lysate: sc-119195

BACKGROUND

CES proteins are carboxylesterases which belong to the type-B carboxylesterase/lipase family and are involved in the detoxification of a wide range of xenobiotics. Assisting the body in the detoxification of a wide range of xenobiotics, CES1 and CES2 are involved in hydrolyzing activation of therapeutic ester and amide pro-drugs, as well as in the detoxification of several narcotic compounds. CES3 localizes to the lumen of the endoplasmic reticulum where it functions to catalyze the H₂O-dependent conversion of carboxylic ester to alcohol and a carboxylate. CES5 is a secreted enzyme found in mammalian kidney and male reproductive fluids. CES6 (carboxylesterase 6) localizes to certain regions of the brain, including the cerebellum, and may participate in detoxification of drugs and xenobiotics in neural tissue and cerebrospinal fluid. Ces1d (carboxylesterase 1D), also known as TGH or Ces3, is a 565 amino acid murine protein belonging to the CES family.

REFERENCES

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2. Holmes, R.S., et al. 2008. Opossum carboxylesterases: sequences, phylogeny and evidence for CES gene duplication events predating the marsupial-eutherian common ancestor. *BMC Evol. Biol.* 8: 54.
3. Holmes, R.S., et al. 2008. Mammalian carboxylesterase 5: comparative biochemistry and genomics. *Comp. Biochem. Physiol. Part D Genomics Proteomics* 3: 195-204.
4. Zhang, L., et al. 2009. Baculo-expression and enzymatic characterization of CES7 esterase. *Acta Biochim. Biophys. Sin.* 41: 731-736.
5. Zhang, L., et al. 2009. Identification and characterization of an epididymis-specific gene, Ces7. *Acta Biochim. Biophys. Sin.* 41: 809-815.
6. Sanghani, S.P., et al. 2009. Human carboxylesterases: an update on CES1, CES2 and CES3. *Protein Pept. Lett.* 16: 1207-1214.

CHROMOSOMAL LOCATION

Genetic locus: Ces1d (mouse) mapping to 8 C5.

PRODUCT

Ces1d (m): 293T Lysate represents a lysate of mouse Ces1d transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Ces1d (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Ces1d antibodies. Recommended use: 10-20 µl per lane.

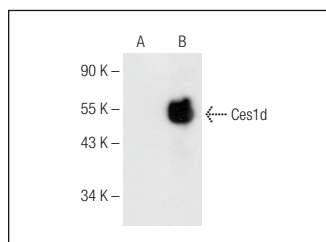
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ces1d (B-8): sc-374160 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Ces1d expression in Ces1d transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Ces1d (B-8): sc-374160. Western blot analysis of Ces1d expression in non-transfected: sc-117752 (A) and mouse Ces1d transfected: sc-119195 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.