

sEH (m): 293T Lysate: sc-123431

BACKGROUND

Epoxide hydrolases (EHs) are biotransformation enzymes that catalyze the hydrolysis of arene and aliphatic epoxides to less reactive and more water soluble dihydrodiols by the *trans* addition of water. The enzymatic hydration is essentially irreversible and produces mainly metabolites of lower reactivity that can be conjugated and excreted, and are therefore generally regarded as detoxifying. Soluble EH (sEH), also known as EPHX2, is a ubiquitous mammalian enzyme for which liver and kidney are reported to have the highest activity. Microsomal EH (mEH) exhibits a broad substrate specificity, while the soluble EH (sEH) is an enzyme with a "complementary" substrate specificity to mEH. sEH is expressed in 3T3 and HeLa cells. sEH is encoded by the EPHX2 gene, which maps to chromosome 8p21.2.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM[™]. 1995. Johns Hopkins University, Baltimore, MD. MIM Number: 132811. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Lancaster, J.M., et al. 1996. Microsomal epoxide hydrolase polymorphism as a risk factor for ovarian cancer. *Mol. Carcinog.* 17: 160-162.
3. Seidegard, J., et al. 1997. The role of human glutathione transferases and epoxide hydrolases in the metabolism of xenobiotics. *Environ. Health Perspect.* 105: 791-799.
4. Draper, A.J., et al. 1999. Soluble epoxide hydrolase in rat inflammatory cells is indistinguishable from soluble epoxide hydrolase in rat liver. *Toxicol. Sci.* 50: 30-35.
5. Mullen, R.T., et al. 1999. Differential subcellular localization of endogenous and transfected soluble epoxide hydrolase in mammalian cells: evidence for isozyme variants. *FEBS Lett.* 445: 301-305.
6. Davis, B.B., et al. 2002. Inhibitors of soluble epoxide hydrolase attenuate vascular smooth muscle cell proliferation. *Proc. Natl. Acad. Sci. USA* 99: 2222-2227.
7. SWISS-PROT/TrEMBL (P07099). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: Ephx2 (mouse) mapping to 14 D1.

PRODUCT

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

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.

PROTOCOLS

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

APPLICATIONS

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

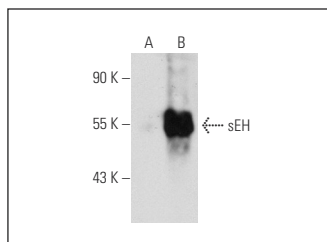
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

sEH (A-5): sc-166961 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse sEH expression in sEH 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



sEH (A-5): sc-166961. Western blot analysis of sEH expression in non-transfected: sc-117752 (A) and mouse sEH transfected: sc-123431 (B) 293T whole cell lysates.

RESEARCH USE

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