SANTA CRUZ BIOTECHNOLOGY, INC.

sEH (F-17): sc-22344

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Epoxide hydrolase (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, therefore, are generally regarded as detoxifying. Soluble EH (sEH) 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 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. Lancaster, J.M., et al. 1996. Microsomal epoxide hydrolase polymorphism as a risk factor for ovarian cancer. Mol. Carcinog. 17: 160-162.
2. 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.
3. 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.

CHROMOSOMAL LOCATION

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

SOURCE

sEH (F-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of sEH of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22344 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

sEH (F-17) is recommended for detection of sEH of mouse and rat origin by Western Blotting (starting dilution 1:200, 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 sEH siRNA (m): sc-44392, sEH shRNA Plasmid (m): sc-44392-SH and sEH shRNA (m) Lentiviral Particles: sc-44392-V.

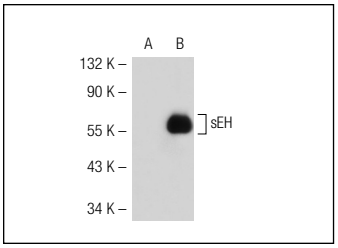
Molecular Weight of sEH: 62 kDa.

Positive Controls: sEH (m): 293T Lysate: sc-123431 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



sEH (F-17): sc-22344. Western blot analysis of sEH expression in non-transfected: sc-117752 (**A**) and mouse sEH transfected: sc-123431 (**B**) 293T whole cell lysates.

SELCET PRODUCT CITATIONS

1. Zhang, D., et al. 2010. DNA methylation of the promoter of soluble epoxide hydrolase silences its expression by an SP-1-dependent mechanism. Biochim. Biophys. Acta 1799: 659-667.
2. Hou, H.H., et al. 2012. N-terminal domain of soluble epoxide hydrolase negatively regulates the VEGF-mediated activation of endothelial nitric oxide synthase. Cardiovasc. Res. 93: 120-129.

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 or our catalog for detailed protocols and support products.