SANTA CRUZ BIOTECHNOLOGY, INC.

sEH (Y-13): sc-87101

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: EPHX2 (human) mapping to 8p21.2; Ephx2 (mouse) mapping to 14 D1.

SOURCE

sEH (Y-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of sEH of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

APPLICATIONS

sEH (Y-13) is recommended for detection of sEH of mouse, rat and human 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), 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). sEH (Y-13) is also recommended for detection of sEH in additional species, including equine, canine, bovine, porcine and avian. Suitable for use as control antibody for sEH siRNA (h): sc-44090, sEH siRNA (m): sc-44392, sEH shRNA Plasmid (h): sc-44090-SH, sEH shRNA Plasmid (m): sc-44392-SH, sEH shRNA (h) Lentiviral Particles: sc-44090-V and sEH shRNA (m) Lentiviral Particles: sc-44392-V.

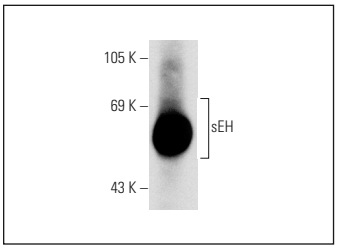
Molecular Weight of sEH: 62 kDa.

Positive Controls: mouse liver extract: sc-2256.

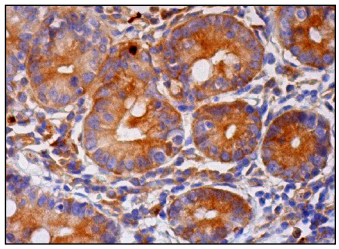
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



sEH (Y-13): sc-87101. Western blot analysis of sEH expression in mouse liver tissue extract.



sEH (Y-13): sc-87101. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Sanders, W.G., et al. 2012. Soluble epoxide hydrolase expression in a porcine model of arteriovenous graft stenosis and anti-inflammatory effects of a soluble epoxide hydrolase inhibitor. Am. J. Physiol., Cell Physiol. 303: C278-C290.

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.

MONOS Satisfaction Guaranteed

Try **sEH (A-5): sc-166961**, our highly recommended monoclonal alternative to sEH (Y-13).