SANTA CRUZ BIOTECHNOLOGY, INC.

FMO1 (T-13): sc-83825

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Flavin containing monooxygenase family consists of five gene products, FMO1-5, that are major enzymatic oxidants involved in the metabolism of various therapeutics. FMO1, also known as dimethylaniline oxidase 1 or dimethylaniline monooxygenase (N-oxide-forming) 1, is a 532 amino acid protein localized to the microsome and endoplasmic reticulum membranes. In human fetuses, the FMO1 gene is expressed in the liver, but shortly after birth, expression is switched off. However, the gene continues to be expressed in adult kidney and, to a lesser extent, in intestine. In all other mammals, the FMO1 gene continues to be expressed in liver after birth. Functionally, FMO1 is involved in the oxidative metabolism of a variety of xenobiotics, such as drugs and pesticides, primarily by catalyzing the N-oxygenation of secondary and tertiary amines. The gene encoding FMO1 is located on chromosome 1q24.3.

REFERENCES

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4. Shaffer, C.L., et al. 2007. Metabolism and disposition of a selective α(7) nicotinic acetylcholine receptor agonist in humans. Drug Metab. Dispos. 35: 1188-1195.
5. Glenn, K.L., et al. 2007. Analysis of FMO genes and off flavour in pork. J. Anim. Breed. Genet. 124: 35-38.
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CHROMOSOMAL LOCATION

Genetic locus: FMO1 (human) mapping to 1q24.3; Fmo1 (mouse) mapping to 1 H2.1.

SOURCE

FMO1 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FMO1 of human 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-83825 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FMO1 (T-13) is recommended for detection of FMO1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other FMO family members.

FMO1 (T-13) is also recommended for detection of FMO1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for FMO1 siRNA (h): sc-75041, FMO1 siRNA (m): sc-75042, FMO1 shRNA Plasmid (h): sc-75041-SH, FMO1 shRNA Plasmid (m): sc-75042-SH, FMO1 shRNA (h) Lentiviral Particles: sc-75041-V and FMO1 shRNA (m) Lentiviral Particles: sc-75042-V.

Molecular Weight of FMO1: 60 kDa.

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) 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.

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.