SANTA CRUZ BIOTECHNOLOGY, INC.

FMO5 (E-8): sc-393732

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. Localizing to microsomal and endoplasmic reticulum membranes, FMO5 (flavin containing monooxygenase 5), also known as dimethylaniline monooxygenase [N-oxide-forming] 5, hepatic flavin-containing monooxygenase 5 or dimethylaniline oxidase 5, is a 533 amino acid protein belonging to the FMO family. Expressed in adult and fetal liver, FMO5 is unlike other FMO family members because it does not function as a drug-metabolizing enzyme. FMO5 binds FAD as a cofactor and is encoded by a gene located on human chromosome 1q21.1.

REFERENCES

1. Overby, L.H., et al. 1995. Characterization of flavin-containing monooxygenase 5 (FMO5) cloned from human and guinea pig: evidence that the unique catalytic properties of FMO5 are not confined to the rabbit ortholog. Arch. Biochem. Biophys. 317: 275-284.
2. Phillips, I.R., et al. 1995. The molecular biology of the flavin-containing monooxygenases of man. Chem. Biol. Interact. 96: 17-32.
3. McCombie, R.R., et al. 1996. Localization of human flavin-containing monooxygenase genes FMO2 and FMO5 to chromosome 1q. Genomics 34: 426-429.
4. Overby, L.H., et al. 1997. Quantitation and kinetic properties of hepatic microsomal and recombinant flavin-containing monooxygenases 3 and 5 from humans. Chem. Biol. Interact. 106: 29-45.
5. Gelb, B.D., et al. 1997. Physical mapping of the human connexin 40 (GJA5), flavin-containing monooxygenase 5, and natriuretic peptide receptor a genes on 1q21. Genomics 39: 409-411.

CHROMOSOMAL LOCATION

Genetic locus: FMO5 (human) mapping to 1q21.1.

SOURCE

FMO5 (E-8) is a mouse monoclonal antibody raised against amino acids 398-455 mapping within an internal region of FMO5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FMO5 (E-8) is available conjugated to agarose (sc-393732 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393732 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393732 PE), fluorescein (sc-393732 FITC), Alexa Fluor® 488 (sc-393732 AF488), Alexa Fluor® 546 (sc-393732 AF546), Alexa Fluor® 594 (sc-393732 AF594) or Alexa Fluor® 647 (sc-393732 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393732 AF680) or Alexa Fluor® 790 (sc-393732 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

FMO5 (E-8) is recommended for detection of FMO5 of human origin by Western Blotting (starting dilution 1:100, 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 FMO5 siRNA (h): sc-88012, FMO5 shRNA Plasmid (h): sc-88012-SH and FMO5 shRNA (h) Lentiviral Particles: sc-88012-V.

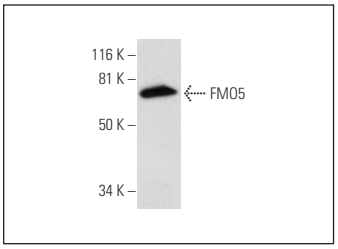
Molecular Weight of FMO5: 60 kDa.

Positive Controls: human liver extract: sc-363766.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FMO5 (E-8): sc-393732. Western blot analysis of FMO5 expression in human liver tissue extract.

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 for detailed protocols and support products.