SANTA CRUZ BIOTECHNOLOGY, INC.

UGT2A3 (Y-15): sc-249220

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UDP-glucuronosyltransferase isoenzymes (UGTs) catalyze the glucuronidation of small lipophilic molecules, which regulates the bioactivity and metabolic fate of a wide range of endo- and xenobiotics. Glucuronidation increases the polarity of lipophilic molecules and facilitates their entry into aqueous compartments and their ultimate excretion. In essence, glucuronidation provides a protective function by terminating or attenuating the biological activity of its substrates. UGT2A3 (UDP-glucuronosyltransferase 2A3) is a 527 amino acid single-pass membrane protein that is a member of the UDP-glucuronosyltransferase family. UGT2A3 is highly expressed in colon, liver, adipose tissue and small intestine.

REFERENCES

1. Smith, S.A., et al. 1999. Morphine regulation of a novel uridine diphosphate glucuronosyl-transferase in guinea pig pups following in utero exposure. Mol. Genet. Metab. 68: 68-77.
2. King, C.D., et al. 2000. UDP-glucuronosyltransferases. Curr. Drug Metab. 1: 143-161.
3. Owens, I.S., et al. 2005. UDP-glucuronosyltransferases: gene structures of UGT1 and UGT2 families. Methods Enzymol. 400: 1-22.
4. Mackenzie, P.I., et al. 2005. Nomenclature update for the mammalian UDP glycosyltransferase (UGT) gene superfamily. Pharmacogenet. Genomics 15: 677-685.
5. Buckley, D.B. and Klaassen, C.D. 2007. Tissue- and gender-specific mRNA expression of UDP-glucuronosyltransferases (UGTs) in mice. Drug Metab. Dispos. 35: 121-127.
6. Court, M.H., et al. 2008. Novel polymorphic human UDP-glucuronosyltransferase 2A3: cloning, functional characterization of enzyme variants, comparative tissue expression, and gene induction. Mol. Pharmacol. 74: 744-754.
7. Sneitz, N., et al. 2009. Human UDP-glucuronosyltransferase UGT2A2: cDNA construction, expression, and functional characterization in comparison with UGT2A1 and UGT2A3. Pharmacogenet. Genomics 19: 923-934.

CHROMOSOMAL LOCATION

Genetic locus: Ugt2a3 (mouse) mapping to 5 E1.

SOURCE

UGT2A3 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of UGT2A3 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-249220 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UGT2A3 (Y-15) is recommended for detection of UGT2A3 of mouse 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 UGT2A1 or UGT2A2.

Suitable for use as control antibody for UGT2A3 siRNA (m): sc-154898, UGT2A3 shRNA Plasmid (m): sc-154898-SH and UGT2A3 shRNA (m) Lentiviral Particles: sc-154898-V.

Molecular Weight of UGT2A3: 60 kDa.

ECOMMENDED 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.