SANTA CRUZ BIOTECHNOLOGY, INC.

UGT2B (E-6): sc-271777

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. The UGT2B family of isoenzymes are highly expressed in liver, but are also detected in several non-hepatic tissues, including skin, breast, prostate, intestine, placenta and lung. Therefore, the UGT2B family may preferentially modulate steroid metabolism and excretion in addition to bile acids and xenobiotics. The human UGT2B genes localize as a cluster on chromosome 4q13.2.

REFERENCES

1. Monaghan, G., et al. 1994. Isolation of a human YAC contig encompassing a cluster of UGT2 genes and its regional localization to chromosome 4q13.2. Genomics 23: 496-499.
2. Beaulieu, M., et al. 1996. Isolation and characterization of a novel cDNA encoding a human UDP-glucuronosyltransferase active on C19 steroids. J. Biol. Chem. 271: 22855-22862.

SOURCE

UGT2B (E-6) is a mouse monoclonal antibody raised against amino acids 188-487 mapping near the C-terminus of UGT2B4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UGT2B (E-6) is available conjugated to agarose (sc-271777 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271777 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271777 PE), fluorescein (sc-271777 FITC), Alexa Fluor® 488 (sc-271777 AF488), Alexa Fluor® 546 (sc-271777 AF546), Alexa Fluor® 594 (sc-271777 AF594) or Alexa Fluor® 647 (sc-271777 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271777 AF680) or Alexa Fluor® 790 (sc-271777 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

UGT2B (E-6) is recommended for detection of UGT2B family members and UGT2A1 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), 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).

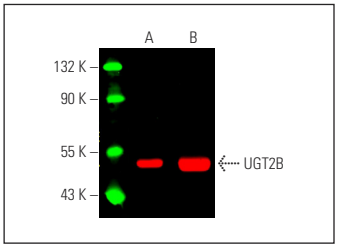
Molecular Weight of UGT2B: 52 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human kidney extract: sc-363764 or human liver extract: sc-363766.

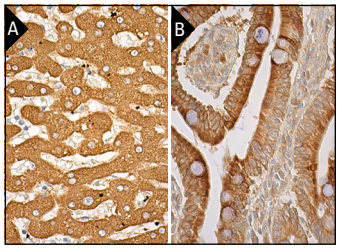
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



UGT2B (E-6) Alexa Fluor® 790: sc-271777 AF790. Direct near-infrared western blot analysis of UGT2B expression in human kidney (**A**) and human liver (**B**) tissue extracts. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 680: sc-516730.



UGT2B (E-6): sc-271777. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Miyawaki, I., et al. 2012. The effects of clobazam treatment in rats on the expression of genes and proteins encoding glucuronosyltransferase 1A/2B (UGT1A/2B) and multidrug resistance-associated protein-2 (MRP2), and development of thyroid follicular cell hypertrophy. Toxicol. Appl. Pharmacol. 265: 351-359.
2. Lu, D., et al. 2017. Transcriptional regulation of human UDP-glucuronosyltransferase 2B10 by farnesoid X receptor in human hepatoma Hep G2 cells. Mol. Pharm. 14: 2899-2907.

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.