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UGT1A1 (m): 293T Lysate: sc-124446

BACKGROUND

Glucuronidation, an important bile acid detoxification pathway, is catalyzed by enzymes belonging to the UDP-glucuronosyltransferase (UGT) superfamily. UGT genes are classified into the UGT1A and UGT2B subfamilies. Although each subfamily and each isoform shows tissue-specific patterns of distribution, the underlying mechanisms for this tissue specificity have not been fully elucidated. The human UDP-glucuronosyltransferase 1 (UGT1) locus encodes at least ten UGT1A proteins (UGT1A1-UGT1A10) that play a prominent role in drug and xenobiotic metabolism. Research indicates that nuclear receptors such as pregnane X receptor (PXR), constitutive androstane receptor (CAR) and peroxisome proliferator-activated receptor (PPAR) can regulate UGTs, which may contribute to the tissue-specific expression pattern of UGTs. Deficiency in the expression and/or activity of UGTs may lead to genetic and acquired diseases such as Crigler-Najjar syndrome and Gilbert syndrome. Based on their ability to catalyze the glucuronidation of xenobiotics and endobiotics, UGTs play a critical role in hormonal homeostasis, energy metabolism, bilirubin clearance and xenobiotic detoxification. UDP-glucuronosyltransferase 1A1 (UGT1A), also designated Bilirubin specific UDPGT isozyme 1 (HUG-BR1), is crucial in the conjugation and elimination of toxic xenobiotics and endogenous compounds. Defects in UGT1A1 may cause transient familial neonatal hyperbilirubinemia associated with breast milk, which is characterized by excessive concentration of bilirubin in the blood, leading to jaundice.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ugt1a1 (mouse) mapping to 1 D.

PRODUCT

UGT1A1 (m): 293T Lysate represents a lysate of mouse UGT1A1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

UGT1A1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive UGT1A1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.