

UGT1A7 (E-15): sc-27440

BACKGROUND

UDP-glucuronosyltransferase 1A1 (UGP1A, UGT1A), also designated Bilirubin specific UGP1A isozyme 1 (HUG-BR1), is crucial in the conjugation and elimination of toxic xenobiotics and endogenous compounds. The microsomal protein is expressed in liver but can not be found in skin or kidney. The UGT1A1 isoform is bilirubin-glucuronidating and genetic deficiencies in this isoform are associated with several diseases, including Gilbert Syndrome and Crigler-Najjar syndrome. Defects in UGT1A1 may also cause transient familial neonatal hyperbilirubinemia associated with breast milk, which is characterized by excessive concentration of bilirubin in the blood, leading to jaundice.

REFERENCES

1. Maruo, Y., et al. 2000. Prolonged unconjugated hyperbilirubinemia associated with breast milk and mutations of the bilirubin uridine diphosphate- glucuronosyltransferase gene. *Pediatrics* 106: E59.
2. Ohnishi, A. and Emi, Y. 2003. Rapid proteasomal degradation of translocation-deficient UDP-glucuronosyltransferase 1A1 proteins in patients with Crigler-Najjar type II. *Biochem. Biophys. Res. Commun.* 310: 735-741.
3. SWISS-PROT/TrEMBL (P22309). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
4. World Wide Web URL: <http://harvester.embl.de/harvester/P223/P22309.html>

CHROMOSOMAL LOCATION

Genetic locus: *Ugt1a7c* (rat) mapping to 9q35.

SOURCE

UGT1A7 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of UGT1A7 of rat 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-27440 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

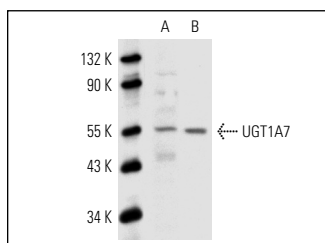
UGT1A7 (E-15) is recommended for detection of UGT1A7 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of UGT1A7: 55 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



UGT1A7 (E-15): sc-27440. Western blot analysis of UGT1A7 expression in c4 whole cell lysate (A) and mouse kidney tissue extract (B).

SELECT PRODUCT CITATIONS

1. Bolling, B.W., et al. 2011. Microsomal quercetin glucuronidation in rat small intestine depends on age and segment. *Drug Metab. Dispos.* 39: 1406-1414.
2. Togna, A.R., et al. 2013. *In vitro* morphine metabolism by rat microglia. *Neuropharmacology* 75: 391-398.

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.



Try **UGT1A (B-4): sc-271268** or **UGT1A7 (B-12): sc-377075**, our highly recommended monoclonal alternatives to UGT1A7 (E-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **UGT1A (B-4): sc-271268**.