Active Recombinant Human UGT1A1 Protein

Cat. No. UGT1A1-97H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human UGT1A1 protein without tag was expressed in insect cells.
Species	Human
Source	Insect cells
Description	This gene encodes a UDP-glucuronosyltransferase, an enzyme of the glucuronidation pathway that transforms small lipophilic molecules, such as steroids, bilirubin, hormones, and drugs, into water-soluble, excretable metabolites. This gene is part of a complex locus that encodes several UDP-glucuronosyltransferases. The locus includes thirteen unique alternate first exons followed by four common exons. Four of the alternate first exons are considered pseudogenes. Each of the remaining nine 5' exons may be spliced to the four common exons, resulting in nine proteins with different N-termini and identical C-termini. Each first exon encodes the substrate binding site, and is regulated by its own promoter. The preferred substrate of this enzyme is bilirubin, although it also has moderate activity with simple phenols, flavones, and C18 steroids. Mutations in this gene result in Crigler-Najjar syndromes types I and II and in Gilbert syndrome.
Bio-activity	UGT Activity Data(Unless otherwise stated, all assays are carried out at 37 centigrade in 100 mM Tris-HCl (pH 7.5) containing 5 mM magnesium chloride and 2 mM UDPGA. Alamethicin (10 μg/ml final concentration) is added to kinetics tests only) Substrate: 17β-estradiol (3-glucuronide formation) Linear with time up to: 20 min(Determined at 10 μM substrate, using a protein

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	concentration of 250 µg/ml) Linear with protein up to: 500 µg/ml(Determined at 10 µM substrate, using an incubation time of 5 min) Vmax: 797 pmol/min/mg protein S50: 10 µM
Usage	For laboratory (research) purposes only
Storage	Store at -80 centigrade. Avoid frequent temperature changes. Thaw on ice.
Concentration	Protein Concentration: 5 mg/ml
Storage Buffer	25 mM Tris-acetate (pH 7.6), 10% (v/v) glycerol, 1 mM EDTA

GENE INFORMATION

Gene Name	UGT1A1 UDP glucuronosyltransferase family 1 member A1 [Homo sapiens (human)]
Official Symbol	UGT1A1
Synonyms	UGT1A1; UDP glucuronosyltransferase family 1 member A1; GNT1; UGT1; UDPGT; UGT1A; HUG-BR1; BILIQTL1; UDPGT 1-1; UDP-glucuronosyltransferase 1A1; UDP glucuronosyltransferase 1 family, polypeptide A1; UDP glycosyltransferase 1 family, polypeptide A1; UDP-glucuronosyltransferase 1-A; UDP-glucuronosyltransferase 1A; UGT-1A; UGT1*1; UGT1-01; UGT1.1; bilirubin UDP-glucuronosyltranserase; bilirubin UDP-glucuronosyltransferase 1-1; bilirubin UDP-glucuronosyltransferase isozyme 1; bilirubin-specific UDPGT isozyme 1
Gene ID	54658

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mRNA Refseq	NM_000463
Protein Refseq	NP_000454
MIM	191740
UniProt ID	P22309

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