UGT1A8 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702487
Synonyms:	UDP-glucuronosyltransferase 1A8; UDP-glucuronosyltransferase 1-8; UDPGT 1-8; UGT1*8; UGT1-08; UGT1.8; UDP-glucuronosyltransferase 1-H; UGT-1H; UGT1H
Species:	Human
Source:	E. coli Cell-free
Accession:	Q9HAW9 (G26-H530)
Gene ID:	54576
Molecular Weight:	59.9 kDa

PROPERTIES

AA Sequence	G K L L V V P M D G L G K S L N C T V K F S L F L S S S N G F L D P F D A C G L P L S Y V P R I L L N A L E I A S E I L M P N M I F I G G I S M V S E I P E K K T I L V K W L P Q N V M M P L F G D Q M A V I N D K S Y K E K G A P H L R P A A C C A Y G Y R K C L S H W F T M Q S V V T Y S T S Y T L E D F F N L F F S H C R I V A K Y F S L P S G F S D A M T F K E Q T P V T A Y D L Y N C H Q G K P L P M A M A I A D A L G K D L L G H P M T R A D N A K R M E T K G N I M R L S S L H K H D L T W Y Q Y H S G K K G R V K K A H E K L I L R G H E V L D R E F M D F A D S L F N D R K L V E V V F A R G I A C H R V R N H I M H L E S H T S I W L L R T I P Q T V L W R Y T F I T H A G S H G V A G V T L N V L E M D R P V E P L D L A L D V I G F L L A V K S K T H V V V M P E V S W Q A Q W K A Q V R S L Y L K E S S F D A V Y L E E G A Q C P A E H L F C Q Y F S K D F V L D Y P K P V E H G I V V F S L G G T R P S N L A N N Y E S I C N G V P M T S E D L E N A L K V F W V E F V M R H V L T V A F I T F K
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	UGT1A8, a pivotal member of the UDP-glucuronosyltransferase (UGT) family, takes center stage in phase II biotransformation reactions by catalyzing the conjugation of lipophilic substrates with glucuronic acid, enhancing water solubility and facilitating excretion into urine or bile. This enzymatic prowess is indispensable for the elimination and detoxification of drugs, xenobiotics, and endogenous compounds. UGT1A8 exhibits a broad substrate specificity, extending its catalytic reach to endogenous steroid hormones, including androgens and estrogens, as well as phytoestrogens such as genistein and daidzein, known for their anticancer and cardiovascular properties. Notably, UGT1A8 orchestrates a series of glucuronidation steps to produce dihydrotestosterone (DHT) diglucuronide from DHT. Additionally, this versatile enzyme contributes to the glucuronidation of the AGTR1 angiotensin receptor antagonist caderastan and metabolizes mycophenolate, an immunosuppressive agent. Intriguingly, UGT1A8, while lacking glucuronidation activity, functions as a negative regulator of isoform 1, underscoring its intricate role in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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