10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

UGT1A1 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13949a

Specification

UGT1A1 Antibody (N-term) Blocking peptide - Product Information

Primary Accession P22309

UGT1A1 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 54658

Other Names
UDP-glucuronosyltransferase 1-1, UDPGT 1-1, UGT1*1, UGT1-01, UGT11, Bilirubin-specific UDPGT isozyme 1, hUG-BR1, UDP-glucuronosyltransferase 1-A, UGT-1A, UGT1A, UDP-glucuronosyltransferase 1A1, UGT1A1, GNT1, UGT1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13949a was selected from the N-term region of UGT1A1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

UGT1A1 Antibody (N-term) Blocking peptide - Protein Information

Name UGT1A1 (HGNC:12530)

Synonyms GNT1, UGT1

Function
[Isoform 1]: UDP-glucuronosyltransferase (UGT) that catalyzes phase II biotransformation reactions in which lipophilic substrates are conjugated with glucuronic acid to increase the metabolite's water solubility, thereby facilitating excretion into either the urine or bile (PubMed:12181437, PubMed:15472229, PubMed:18004206, PubMed:18004212, PubMed:18719240, PubMed:19830808, PubMed:<a

href="http://www.uniprot.org/citations/23288867" target="_blank">23288867). Essential for the elimination and detoxification of drugs, xenobiotics and endogenous compounds (PubMed:12181437, PubMed:18004206, PubMed:18004212). Catalyzes the glucuronidation of endogenous estrogen hormones such as estradiol, estrone and estriol (PubMed:15472229, PubMed:18719240, PubMed:23288867). Involved in the glucuronidation of bilirubin, a degradation product occurring in the normal catabolic pathway that breaks down heme in vertebrates (PubMed:17187418, PubMed:18004206, PubMed:19830808). Also catalyzes the glucuronidation the isoflavones genistein, daidzein, glycitein, formononetin, biochanin A and prunetin, which are phytoestrogens with anticancer and cardiovascular properties (PubMed:18052087, PubMed:19545173). Involved in the glucuronidation of the AGTR1 angiotensin receptor antagonist losartan, a drug which can inhibit the effect of angiotensin II (PubMed:18674515). Involved in the biotransformation of 7-ethyl-10- hydroxycamptothecin (SN-38), the pharmacologically active metabolite of the anticancer drug irinotecan (PubMed:12181437, PubMed:18004212, PubMed:20610558).

Cellular Location
Endoplasmic reticulum membrane; Single-pass membrane protein. Cytoplasm, perinuclear region

Tissue Location
[Isoform 1]: Expressed in liver, colon and small intestine. Not expressed in kidney, esophagus and skin

UGT1A1 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

UGT1A1 Antibody (N-term) Blocking peptide - Images

UGT1A1 Antibody (N-term) Blocking peptide - Background

This gene encodes a UDP-glucuronosyltransferase, an enzymeof the glucuronidation pathway that transforms small lipophilicmolecules, such as steroids, bilirubin, hormones, and drugs, intowater-soluble, excretable metabolites. This gene is part of acomplex locus that encodes several UDP-glucuronosyltransferases.The locus includes thirteen unique alternate first exons followedby four common exons. Four of the alternate first exons areconsidered pseudogenes. Each of the remaining nine 5' exons may bespliced to the four common exons, resulting in nine proteins withdifferent N-termini and identical C-termini. Each first exonencodes the substrate binding site, and is regulated by its ownpromoter. 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 inCrigler-Najjar syndromes types I and II and in Gilbert syndrome.

UGT1A1 Antibody (N-term) Blocking peptide - References

Italia, K.Y., et al. Clin. Biochem. 43 (16-17), 1329-1332 (2010) :Justenhoven, C., et al. Breast Cancer Res. Treat. 124(1):289-292(2010)Hu, M., et al. Pharmacogenet. Genomics 20(10):634-637(2010)Sai, K., et al. Br J Clin Pharmacol 70(2):222-233(2010)Kilic, I., et al. Int J Clin Pharmacol Ther 48(8):504-508(2010)