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UGT1A9 (Hepatocyte & Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone UGT1A9/1229]
Catalog # AH12107

Product Information

Application	IF, FC
Primary Accession	O60656
Other Accession	54600, 554822
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	UGT1A9/1229
Calculated MW	59941

Additional Information

Gene ID	54600
Other Names	UDP-glucuronosyltransferase 1-9, UDPGT 1-9, UGT1*9, UGT1-09, UGT1.9, 2.4.1.17, UDP-glucuronosyltransferase 1-I, UGT-1I, UGT1I, UDP-glucuronosyltransferase 1A9, lugP4, UGT1A9, GNT1, UGT1
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	UGT1A9 (Hepatocyte & Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UGT1A9 (HGNC:12541)
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:15470161, PubMed:15472229, PubMed:18004212, PubMed:18052087, PubMed:18674515, PubMed:19545173, PubMed:15231852, PubMed:21422672, PubMed:38211441). Essential for the elimination and detoxification of drugs, xenobiotics and endogenous

	compounds (PubMed:12181437, PubMed:18004212). Catalyzes the glucuronidation of endogenous estrogen hormones such as estradiol and estrone (PubMed:15472229). Involved in the glucuronidation of arachidonic acid (AA) and AA-derived eicosanoids including 15-HETE, PGB1 and F2-isoprostanes (8-iso-PGF2alpha and 5-epi-5-F2t-IsoP) (PubMed:15231852, PubMed:38211441). Glucuronates the phytochemical ferulic acid efficently at both the phenolic or the carboxylic acid group (PubMed:21422672). Also catalyzes the glucuronidation of 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 caderastan, 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:20610558). Also metabolizes mycophenolate, an immunosuppressive agent (PubMed:15470161, PubMed:18004212).
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein
Tissue Location	[Isoform 1]: Expressed in liver, kidney, colon, esophagus and small intestine.

Background

It recognizes a protein of about 60kDa, which is identified as human UGT1A9. It does not cross-react with the other UGT1A isoforms including UGT1A7, UGT1A8, and UGT1A10 and shows a high degree of specificity. UGT1A9 is 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 MAb binds to human hepatocytes and the majority of human hepatocellular carcinomas (HCC s). In frozen sections, it stains hepatic cells and may be used as a marker of the liver. This MAb also binds to cell preparations of hepatocellular carcinoma biopsies or cell lines.

References

Shingo Oda, Miki Nakajima, Masahiko Hatakeyama, Tatsuki Fukami, and Tsuyoshi Yokoi. Preparation of a Specific Monoclonal Antibody against Human UDP-Glucuronosyltransferase (UGT) 1A9 and Evaluation of UGT1A9 Protein Levels in Human Tissues. Drug Metabolism and Disposition, 40:1620-1627, 2012