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

ABCC3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10144C

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	O15438
Other Accession	NP_003777.2, NP_001137542.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22384
Calculated MW	169343
Antigen Region	899-925

Additional Information

Gene ID	8714
Other Names	Canalicular multispecific organic anion transporter 2, ATP-binding cassette sub-family C member 3, Multi-specific organic anion transporter D, MOAT-D, Multidrug resistance-associated protein 3, ABCC3, CMOAT2, MLP2, MRP3
Target/Specificity	This ABCC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 899-925 amino acids from the Central region of human ABCC3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ABCC3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ABCC3 (HGNC:54)
Synonyms	CMOAT2, MLP2, MRP3

Function	ATP-dependent transporter of the ATP-binding cassette (ABC) family that hydrolyzes ATP to enable active transport of substrates conjugated with glucuronate, glutathione or sulfate. Operates at basolateral membranes of polarized cells such as hepatocytes and intestinal epithelial cells, where it mediates the efflux of conjugated substrates from intestine and liver into the bloodstream (PubMed:10359813, PubMed:11581266, PubMed:15083066, PubMed:29175180, PubMed:30959153, PubMed:31704245, PubMed:39993711, PubMed:37485728). Involved in enterohepatic recirculation of steroid glucuronates. Shares substrate specificity with MRP2, displaying higher affinity for both estrogen and androgen glucuronates such as 17beta-estradiol, estrone, testosterone and 5alpha-dihydrotestosterone glucuronates (PubMed:29175180, PubMed:30959153, PubMed:31704245, PubMed:37485728). Involved in sinusoidal efflux of mono- and bis-glucuronidated bilirubin from hepatocytes into the blood for renal uptake and excretion (PubMed:15083066). May selectively transport steroid sulfate conjugates. Has transporter activity toward androgen sulfates such as androsterone and dehydroepiandrosterone sulfates but is inactive toward estrone 3-sulfate (PubMed:29175180, PubMed:39993711). Can transport various bile acid conjugates such as taurocholate, glycocholate, taurochenodeoxycholate-3-sulfate and taurolithocholate-3-sulfate. Does not contribute substantially to bile acids physiology, but provides an alternative route for the export of bile acids and glucuronate conjugates from cholestatic hepatocytes to avoid liver damage (By similarity). Can also transport glutathione conjugates such as leukotriene C4 (LTC4) (PubMed:11581266). Transports various xenobiotics. Confers resistance to anticancer drugs, methotrexate, tenoposide and etoposide, by decreasing accumulation of these drugs in cells (PubMed:10359813, PubMed:11581266). May contribute to the transport of organic compounds in testes across the blood-testis-barrier (Probable).
Cellular Location	Basolateral cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=Localized to the basolateral membrane of enterocytes (PubMed:28408210). Localized to the basal membrane of Sertoli cells (PubMed:35307651).
Tissue Location	Mainly expressed in the liver. Also expressed in small intestine, colon, prostate, testis, brain and at a lower level in the kidney. In testis, localized to peritubular myoid cells, Leydig cells, along the basal membrane of Sertoli cells and moderately in the adluminal compartment of the seminiferous tubules (PubMed:35307651)

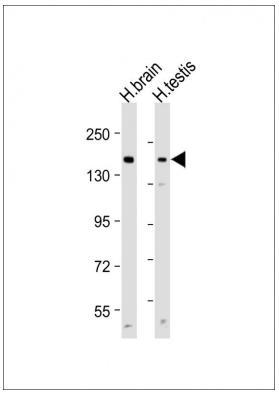
Background

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. The specific function of this protein has not yet been determined; however, this protein may play a role in the transport of biliary and intestinal excretion of organic anions. Alternatively spliced variants which encode different protein isoforms have been described; however, not all variants have been fully characterized.

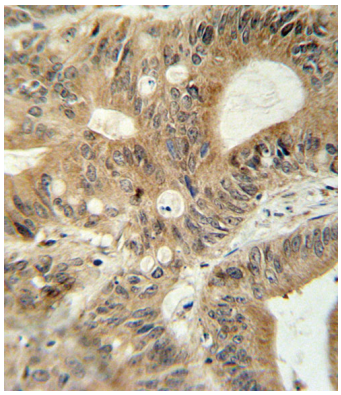
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Hoffman, A.D., et al. Protein J. 29(5):373-379(2010)
Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Moyer, A.M., et al. Cancer Epidemiol. Biomarkers Prev. 19(3):811-821(2010)

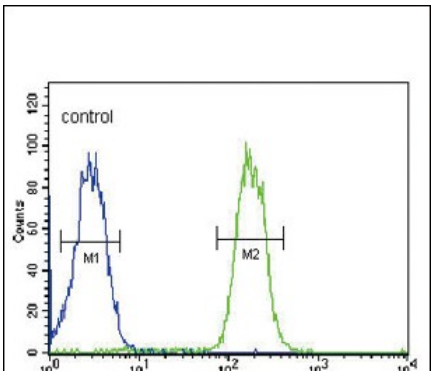
Images



All lanes : Anti-ABCC3 Antibody (Center) at 1:1000 dilution Lane 1: Human brain lysate Lane 2: Human testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 169 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



ABCC3 antibody (Center) (Cat. #AP10144c) immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ABCC3 antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



ABCC3 Antibody (Center) (Cat. #AP10144c) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.