

## TM1

OATP5A1	AMLQERRCLYVVLTD <b>SR</b> CF <b>LV</b> CM <b>FL</b> TF <b>IQ</b> ALMVSGYLSSVITTIERRY <b>SL</b> KSS <b>ES</b> G <b>LL</b> V
OATP4A1	WAF-APPC-LQVLNT <b>PK</b> GI <b>LF</b> FLCAA <b>FL</b> QGM <b>TV</b> NGFINTVITSLERRYDLHSY <b>QS</b> G <b>LI</b> A
OATP4C1	RNF-HPQC-LQRCNT <b>PG</b> G <b>FL</b> LHY <b>CL</b> LAV <b>TQ</b> GIVV <b>NG</b> LVNISISTVEKRYEMKSS <b>LT</b> G <b>LI</b> S
OATP6A1	GCL-VSTC-CECCNN <b>IR</b> CF <b>MI</b> FY <b>CIL</b> LI <b>CQ</b> GVV-FGLIDV <b>SIG</b> DFQ <b>KEY</b> QLKT <b>IE</b> KL <b>AL</b> E
OATP1B1	EAQPS <b>EN</b> KKTRYCN <b>GL</b> K <b>MF</b> LAALS <b>S</b> S <b>FI</b> AK <b>TL</b> G-A <b>II</b> MKSS <b>II</b> H <b>IER</b> RF <b>EIS</b> SS <b>LV</b> G <b>FI</b> D
OATP1B3	ESAS <b>SE</b> KKKTRRC <b>NG</b> F <b>K</b> M <b>FL</b> AALS <b>S</b> S <b>FI</b> AK <b>AL</b> G-G <b>II</b> MKISIT <b>QI</b> ERRFDISS <b>SL</b> AG <b>LI</b> D
OATP1A2	TEKRIETHRIRCLSK <b>L</b> K <b>MF</b> LL <b>AI</b> T <b>CA</b> FV <b>SK</b> TL <b>S</b> -G <b>SY</b> MNSML <b>TQ</b> IERQFN <b>IP</b> TS <b>LV</b> G <b>FI</b> N
OATP1C1	TEYPS <b>SEE</b> K <b>Q</b> PCCG <b>EL</b> K <b>V</b> FL <b>CA</b> LS <b>FV</b> Y <b>FA</b> K <b>AL</b> A-E <b>GY</b> LK <b>ST</b> IT <b>QI</b> ERRFD <b>IP</b> SS <b>LV</b> G <b>VI</b> D
OATP3A1	QRNKKKKKKVSCFS <b>NI</b> K <b>IF</b> LV <b>SE</b> CA <b>LM</b> LA <b>Q</b> GT <b>V</b> -G <b>AY</b> LV <b>SV</b> LTT <b>L</b> ERRF <b>N</b> L <b>Q</b> SAD <b>V</b> G <b>VI</b> A
OATP2A1	STSRAGRCARSVFGN <b>IK</b> V <b>F</b> VL <b>CQ</b> GL <b>LQ</b> LC <b>QL</b> LY-S <b>AY</b> FKSS <b>LT</b> T <b>IE</b> K <b>R</b> FGLSSSS <b>S</b> G <b>LI</b> S
OATP2B1	ASDPDQDVRPSVFHN <b>IK</b> L <b>F</b> VL <b>CH</b> SL <b>LQ</b> LA <b>Q</b> L <b>MI</b> -S <b>GY</b> LKSS <b>IS</b> TVEK <b>R</b> FGLSS <b>Q</b> T <b>S</b> G <b>LI</b> LA

## TM2

OATP5A1	<b>SC</b> FDIGNLVVV <b>FV</b> SYFGGRGRRPLWLAVGGL <b>LI</b> AFGAALFALPHFISPPY <b>QI</b> QELNASA
OATP4A1	<b>SS</b> YD <b>IA</b> AC <b>CL</b> CT <b>FV</b> SYFGGSGHKPRWLGWGVLLMG <b>TG</b> SLVFALPHFTAGRYEVELDAGV-
OATP4C1	<b>SS</b> YD <b>IS</b> FC <b>LL</b> SL <b>FV</b> SYFFGERGHKPRWLAF <b>AA</b> FMIGLGALV <b>FS</b> LPQFFSGEYKLGSLFED-
OATP6A1	<b>K</b> SYD <b>IS</b> SG <b>LV</b> A <b>IF</b> IAFYGDRK-KV <b>IF</b> VASS <b>FL</b> IGLG <b>SL</b> LCA <b>FP</b> SINEENKQSKVGIED-
OATP1B1	<b>GS</b> FEIGN <b>LLV</b> IV <b>FV</b> SYFGSKLHRPKLIGIGCFIMGIGGVLTALPHFFMGYYRYSKETNIN
OATP1B3	<b>GS</b> FEIGN <b>LLV</b> IV <b>FV</b> SYFGSKLHRPKLIGIGCLLMGTGSIL <b>TS</b> LPHFFMGYYRYSKETHIN
OATP1A2	<b>GS</b> FEIGN <b>LLLI</b> IF <b>V</b> SYFGTKLHRPIMIGIGCVVMGLGCFLKSLPHFLMNQY <b>EY</b> ESTV---
OATP1C1	<b>GS</b> FEIGN <b>LLV</b> IT <b>FV</b> SYFGAKLHRPKIIGAGCVIMGVGT <b>LLI</b> AMPQFFMEQYKYERYS---
OATP3A1	<b>SS</b> FEIGN <b>LAL</b> IL <b>FV</b> SYFGARGHRPRLIGCGGIVMALGALLSALPEFLTHQYKY <b>EAGE</b> IRW
OATP2A1	<b>SL</b> NEIS <b>NA</b> IL <b>II</b> IF <b>V</b> SYFGSRVHRPRLIGIGGL <b>FL</b> AAGAFIL <b>TL</b> PHFLSEPYQY <b>TL</b> ASTGN
OATP2B1	<b>SF</b> NEVG <b>NTAL</b> IV <b>FV</b> SYFGSRVHRPRMIGYGAILVALAGLLMTLPHFISEPYRYDNTSPED

## TM3

OATP5A1	SCFDIGNLVVV <b>FV</b> SYFGGRGRRP <b>L</b> WLAVGGL <b>LI</b> AFGAALFALPHFISPPY <b>QI</b> QELNASA
OATP4A1	SSYD <b>IA</b> AC <b>CL</b> CT <b>FV</b> SYFGGSGHKP <b>R</b> WLGWGVLLMG <b>TG</b> SLVFALPHFTAGRYEVELDAGV-
OATP4C1	SSYD <b>IS</b> FC <b>LL</b> SL <b>FV</b> SYFFGERGHK <b>P</b> RLAF <b>AA</b> FMIGLGALV <b>FS</b> LPQFFSGEYKLGSLFED-
OATP6A1	KSYD <b>IS</b> SG <b>LV</b> A <b>IF</b> IAFYGDRK-KV <b>IF</b> VASS <b>FL</b> IGLG <b>SL</b> LCA <b>FP</b> SINEENKQSKVGIED-
OATP1B1	GSFEIGN <b>LLV</b> IV <b>FV</b> SYFGSKLHRP <b>K</b> LIGIGCFIMGIGGVLTALPHFFMGYYRYSKETNIN
OATP1B3	GSFEIGN <b>LLV</b> IV <b>FV</b> SYFGSKLHRP <b>K</b> LIGIGCLLMGTGSIL <b>TS</b> LPHFFMGYYRYSKETHIN
OATP1A2	GSFEIGN <b>LLLI</b> IF <b>V</b> SYFGTKLHRP <b>I</b> MIGIGCVVMGLGCFLKSLPHFLMNQY <b>EY</b> ESTV---
OATP1C1	GSFEIGN <b>LLV</b> IT <b>FV</b> SYFGAKLHRP <b>K</b> IIGAGCVIMGVGT <b>LLI</b> AMPQFFMEQYKYERYS---
OATP3A1	SSFEIGN <b>LAL</b> IL <b>FV</b> SYFGARGHRP <b>R</b> LIGCGGIVMALGALLSALPEFLTHQYKY <b>EAGE</b> IRW
OATP2A1	SLNEIS <b>NA</b> IL <b>II</b> IF <b>V</b> SYFGSRVHRP <b>R</b> LIGIGGL <b>FL</b> AAGAFIL <b>TL</b> PHFLSEPYQY <b>TL</b> ASTGN

OATP2B1            SFNEVGNTALIVFVSYFGSRVHRPRMIGYGAILVALAGLLMTLPHFISEPYRYDNTSPED

## TM4 + TM5

OATP5A1            PND-----GLCQGGNSTA-----TLEPP--ACPKDSGGNNHWVYVALFICAQILI  
OATP4A1            -----RTC-----PANPG--AVCADST-SGLSRYQLVFMLGQFLH  
OATP4C1            -----TCV-----TTRNS--TSCTSSTS-SLSNYLYVFILGQLLL  
OATP6A1            -----ICE-----EIKVV--SGCQSSGISFQSKYLSFFILGQTVQ  
OATP1B1            SSENSTSTLSTCLINQI----LSLNRSPEIVGK--GCLKESGSYMWIYV---FMGNMLR  
OATP1B3            PSENSTSSLSTCLINQT----LSFNGTSP EIVEK--DCVKESGSHMWIYV---FMGNMLR  
OATP1A2            SVSGNLSSNSFLCMENGTQIL-----RPTQDPS--ECTKEVKSLMWVYV---LVGNIVR  
OATP1C1            PSSNSTLSISPCLESSSQLPVSVMEKSKSKISN--ECEVDTSSTMWIYV---FLGNLLR  
OATP3A1            GAE----GRDVCA-ANGSGGD---EGPDPDLI----CRNRTATNMMYLLL---IGAQVLL  
OATP2A1            NS-R--LQAE LCQ-KHWQDLP-----PSKCHSTTQNPQKETSSMWGLM---VVAQLLA  
OATP2B1            MPQD--FKASLCL-PTTSAPA---SAPSNGNCSS---YTETQHLSVVGIM---FVAQTLL

OATP5A1            GMGSTPIYTLGPTYLDDNVKKENSSLYLAIMYVMGALGPAVGYLLGGLLIGFYVD--PR-  
OATP4A1            GVGATPLYTLGVTYLDENVKSSCPVYIAIFYTAAILGPAAGYLIGGALLNIYTE--MG-  
OATP4C1            GAGGTPLYTLGTAFLDDSVPTHKSSLYIGTG YAMSILGPAIGYVLGGQLLTIYIDVAMG-  
OATP6A1            GIAGMPLYILGITFIDENVATHSAGIYLGIAECTSMIGYALGYVLGAPLVKVPENTTSA-  
OATP1B1            GIGETPIVPLGLSYIDDFAKEGHSSLYLGILNAIAMIGPIIGFTLGSLSFSKMYVDIGYVD  
OATP1B3            GIGETPIVPLGISYIDDFAKEGHSSLYLGS LNAIGMIGPVIGFALGSLSFAKMYVDIGYVD  
OATP1A2            GMGETPILPLGISYIEDFAKFENSPLYIGLVETGAIIGPLIGLLLASFCANVYVDTG FVN  
OATP1C1            GIGETPIQPLGIAYLDDFAS EDNAAFYIGCVQTVAIIGPIFGFLLGSLCAKLYVDIGFVN  
OATP3A1            GIGATPVQPLGVSYIDDHVRRKDSSLYIGILFTMLVFGPACGFILGSFCTKIYVD AVFID  
OATP2A1            GIGTVPIQPFGISYVDDFSEPSNSPLYISILFAISVFGPAFGYLLGSVMLQIFVDYGRVN  
OATP2B1            GVGGVPIQPFGISYIDDFAHNSNSPLYLGILFAVTMMGPGLAFLGSLMLRLYVDINQMP

## TM6

OATP5A1            -NPVHLDQNDPRFIGNWWSGFLLCAIAMFLVIFPMFTFPKKLP PRHKKKKKKKFSVDAVS  
OATP4A1            -RRELTTESPLWVGAWWVGFLGSGAAFFTAVPILGYPRQLPGSQRYAVMRAAEMHQLK  
OATP4C1            -ESTDVTEDDPRWLGAWWIGFLLSWIFAWSLIIPFSCFPKHLPGTAEIQAGKTSQAHQSN  
OATP6A1            -TNTTVNNGSPEWLWTWWINFLFAAVVAWCTLIPLSCFPNNMPGSTRIKARKRQLHFFD  
OATP1B1            LSTIRITPTDSRWVGAWWLNFLVSGLFSIISSIPFFFLPQTPNKPQKERKA-SLSLHVLE  
OATP1B3            LSTIRITPKDSRWVGAWWLGLFVSGLFSIISSIPFFFLPKNPKNKPQKERKI-SLSLHV LK  
OATP1A2            TDDLIIPTPTDTRWVGAWWFGFLICAGVNVLT AIPFFFLPNTLPKEGLETNA-DI-----  
OATP1C1            LDHITITPKDPQWVGAWWLGYLIAGIISLLAAVPFWYLPKSLPRSQSREDS-NSSSEKSK  
OATP3A1            TSNLDITPDDPRWIGAWWGGFLLCGALLFFSSLLMFGFPQSLPPHSEPAME-SEQAMLSE  
OATP2A1            TAAVNLVPGDPRWIGAWWLGLLISSALLVLT SFPPFFFP RAMPIGAKRAPA-TA-----  
OATP2B1            EGGISLTIKDPRWVGAWWLGLFLIAGAVALAAIPYFFFPKEMPKEKRELQF-RRKVLAVT

## TM7 + TM8

OATP5A1	DDDVLKEKSNNSEQADK-----KVSSMGFGKDVRDLPRAAVRILSNMTFLFVSL
OATP4A1	-----DSSRG-----EASNPDFGKTIRDPLSIWLLLNPTFILLCL
OATP4C1	-----S-----NADVKGKSIKDFPAALKNLMKNAVFMCLVL
OATP6A1	-----S-----RLKDLKLGTNIKDLCAALWILMKNPVLICLAL
OATP1B1	T-----NDEKDQTANLTN-----QGKNITKNVTGFFQSFKSILTNPLYVMFVL
OATP1B3	T-----NDDRNTANLTN-----QGKNVTKNVTGFFQSLKSILTNPLYVIFLL
OATP1A2	-----IKNENEDKQKEE-----VKKEKYGITKDFLPFMKSLSCNPIYMLFIL
OATP1C1	FI----IDDHDTYQTPQG-----ENAKIMEMARDFLPSLKNLFGNPVYFLYLC
OATP3A1	REYER-----PKPSNGVLRHPLEPDSSASCFQQLRVIPKVTKHLLSNPVFTCIIL
OATP2A1	-DEAR-----KLEEAKSRGSLVDFIKRFPCIFLRLLMNSLFVLVVL
OATP2B1	DSPARKGKDSPSKQSPGESTKKQDGLVQIAPNLTVIQFIKVFPRVLLQTLRHPIFLLVVL

OATP5A1	SYTAESAIVTAFITFIPKFIESQFGIPASNASIYTGVIIVPSAGVGIVLGGYIIKKLKL
OATP4A1	AGATEATLITGMSTFSPKFLESQFSLSASEAATLFGYLVVPAGGGGTFLGGFFVNKLRLR
OATP4C1	STSSEALITTGFATFLPKFIENQFGLTSSFAATLGGAVLIPGAALGQILGGFLVSKFRMT
OATP6A1	SKATEYLVIIIGASEFLPIYLENQFILTPTVATTLAGLVLI PGGALGQLLGGVIVSTLEMS
OATP1B1	LTLLQVSSYIGAFTYVFKYVEQQYQGQSSKANILLGVITIPIFASGMFLGGYIIKKFKLN
OATP1B3	LTLLQVSSFIGSFTYVFKYMEQQYQGSASHANFLLGIITPTVATGMFLGGFIIKKFKLS
OATP1A2	VSVIQFNAFVNMISFMPKYLEQQYGISSDAIFLMGIYNLPPIICIGYIIIGGLIMKKFKIT
OATP1C1	TSTVQFNSLFGMVTYKPKYIEQQYQGQSSSRANFVIGLINIPAVALGIFSGGIVMKKFRIS
OATP3A1	AACMEIAVVAGFAAFLGKYLEQQFNLTSSANQLLGMTAIPCACLGIFLGGLLVKKLSLS
OATP2A1	AQCTFSSVIAGLSTFLNKFLEKQYGTSAAYANFLIGAVNLPAAALGMLFGGILMKRFVFS
OATP2B1	SQVCLSSMAAGMAIFLPKFLEKQFSITASYANLLIGCLSFPSVIVGIVVGGVLVKRLHLG

## TM9

OATP5A1	ARESAKLAMICSGVSLLCFSTLFIVGCESINLGGINIPYTTGPSLTMPHRNLTGSCNVNC
OATP4A1	GSAVIKFCFLCTVVSLLGIL-VFSLHCPSVPMAGVTASYG-GSLLPEGHLNLTAPCNAAC
OATP4C1	CKNTMKFALEFTSGVALTLSFVFMYAKCENEPFAGVSESYN-GTG---ELGNLIAPCNANC
OATP6A1	CKALMRFIMVTSVISLILLVFII FVRCNPVQFAGINEDYD-GTG---KLGNTAPCNEKC
OATP1B1	TVGIAKFSCFTAVMSLSFYLLYFFILCENKSVAGLTMTYDGNPNVTSHRDVPLSYCNSDC
OATP1B3	LVGIAKFSFLTSMISFLFQLLYFP LICESKSVAGLTLT YDGNNSVASHVDVPLSYCNSEC
OATP1A2	VKQAAHIGCWLSLLEYLLYFLSFLMTCENSSVVGINTSYEGIPQDLYVENDIFADCNVDC
OATP1C1	VCGAAKLYLGSSVFGYLLFSLFALGCENS DVAGLTVSYQGTPVSYHERALFSDCNSRC
OATP3A1	ALGAIRMAMLVNLVSTACYVSFLFLGCDTG PVAGVTVPYGNSTAP-GSALDPYSPCNNC
OATP2A1	LQAIPRIATTIITISMILCVPLFFMGCSTPTVAEVYPPSTSS-----SIHPQSPACRRDC

OATP2B1 PVG**CGALCLLGM****LLCLFFSLPLFF**IGCSSHQIAGITHQTSAH-----PGLELSPSCMEAC

## TM10

OATP5A1 GQRSQLRVVIVKTYLNENGYAVSGKCKR--TCN-TL**IPFLVFLFIVTFITACAQPSA**IIV  
OATP4A1 -----SGFGHATAGKCTS--TCQ-RK**PLLLVFIFVVIFFTLSSIPALTA**  
OATP4C1 -----TFGF**EAKAGK**CET--HCA-KL**PIFLC**IFFIVII**FTFMAGT**PITVS  
OATP6A1 -----GDFIDARPGKCDA--KCY-KL**PLFIAFIFSTLIFSGFSGVPIVLA**  
OATP1B1 -----QNRN**YSAHLGECPRDDACTRK**F**YFFVAIQVLNLFFSALGGTSHV**ML  
OATP1B3 -----QNRN**YSAHLGECPRDNTCTRKF****FIYVAIQVINSLFSATGGTTFILL**  
OATP1A2 -----TSGN**SSAVLGLCDKGPD**CSLML**QYFLILSAMSSFIYSLAAIPGYMV**  
OATP1C1 -----KSGN**SSGIVGRCQKDN**GCPQM**FLYFLVISVITSYTL**SLGGIPGYIL  
OATP3A1 -----PAENATVVP**GKCPS**-PGCQEAF**LTFLCVMCICSLIGAMAQTPSVII**  
OATP2A1 -----GGSASAKTGSCP**V**-P-CAHFL**LPAIFLISFVSLIACISHNPLYMM**  
OATP2B1 -----EGNP-VLAGSCDS-T-CSHLV**VPFLLLVSLGSALACLTHTPSF**ML

## TM11

OATP5A1 TLR**S**VEDEERPFALGM**QFVLLR**TLAYIPTPIYFGAVIDTTCMLWQ-QECGVQGSCWEYNV  
OATP4A1 TLRCV**R**DPQRSFALGI**QWIVVRILGGIPGPIAF**GWVIDKACLLWQ-DQCGQQGSCLVYQN  
OATP4C1 ILRCVNHRQ**R**SLALGI**QFMVLRLLGTIPGPIIFG**FTIDSTCILWDINDCGIKGACWIYDN  
OATP6A1 MTRVVPDKL**R**SLALGVSYVILRIFGTIPGPSIF**KMS**GETSCILRDVNKCGHTGRCWIYNK  
OATP1B1 IVKIVQPELKS**L**ALGV**FHSMVIRALGGILAPIYFG**ALIDTTCIKWSTNNCGTRGSCRTYNS  
OATP1B3 TVKIVQPEL**K**ALAMGF**QSMVIR**TLGGILAPIYFGALIDKTCMKWSTNSCGAQGACRIYNS  
OATP1A2 LLRCMKSEEKSLGVGL**HTFCTRVFAGIPAPIYFG**ALMDSTCLHWGTLKCGESGACRIYDS  
OATP1C1 LLRCIKPQLKS**F**ALGI**YTLAIRVLAGIPAPVYFGV**LIDTSC**L**KWGFKRCSRGSCRLYDS  
OATP3A1 LIRTVSPELKS**Y**ALGV**LFLRL**LGFI**PP**LIFGAGIDSTCLFWSTFC-GEQGACVLYDN  
OATP2A1 VLRV**V**NQEEKSFAIGV**QFLMRL**LAWLPSPALYGLTIDHSCIRWNSLCLGRRGACAYYDN  
OATP2B1 ILRGVKKEDKTLAVGI**QFMFLRILAWMPSPIHGS**AIDTTCVHWALSC-GRAVCRYNN

## TM12

OATP5A1 **TSFRFVYFGLAAGLK**FVGFI**FIF**FLAWYSIKYKEDGLQRRRQREFPLS-----TVSERV--  
OATP4A1 **SAM**SRYILIMGLLYKV**L**GVLF**FAI**ACFLYKPLSESSDG-----LETC-----LPSQS--  
OATP4C1 **IKMAHMLVAISVTCKVITM**FFNGFAIFLYKPPPSATDV----SFHK-----ENAVV--  
OATP6A1 **TKMAFLLVGICFLCKLCTI**I**FTTIA**FFIYKRRLNENT-----DFPD-----VTVKN--  
OATP1B1 **TSFSRVYLGLSSMLRVSS**LVLYIILYAMKKKYQEKDINASEN-G-----SVMDE--  
OATP1B3 **VFFGRVYLG**LS**IALRFPAL**VLYIVFIFAMKKKFQGKDTKASDNER-----KVMDE--

OATP1A2	TTFRYIYLGLPAALRGSSFVPALIILILLRKCHLPGENASSGTEL-----IETKVKG
OATP1C1	NVFRHIYLGTLVILGTVSILLSIAVLFILKKNYVSKHRS-----F-----ITKRE--
OATP3A1	VVYRYLYVSIAlALKSFAlLYTTTWQCLRKNYKRYIKNHEGGLSTSEFFASTLTLDNLG
OATP2A1	DALRDRYLGLQMGYKALGMLLLCFISWRVKKN-KEYNVQKAA--G-----LI-----
OATP2B1	DLLRNRFIGLQFFFKTGSVICFALVLAVLRQQDKEARTKESRSP---AVEQQLLVSGPG