Cytochrome P450 3A5 Plays a Prominent Role in the Oxidative Metabolism of the Anti-HIV Drug Maraviroc

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Drug Metabolism and Disposition

Supplementary Table 1

Sequence of oligonucleotides used for site-directed mutagenesis for CYP3A4 and CYP3A5[a].

Mutation	Oligonucleotide Sequence
CYP3A5	
L57F	5'-aaatgttttgtcctatcgtcagggt**t**ttctggaaatttgacac-3'
	5'-gtgtcaaatttccagaaaccctgacgataggacaaaacattt-3'
S107P	5'-cttcacaaatcgaagg**c**ctttaggcccagtggg-3'
	5'-cccactgggcctaaaggccttcgatttgtgaag-3'
L108F	5'-cttcacaaatcgaaggtctt**c**ggcccagtggg-3'
	5'-cccactgggccgaaagaccttcgatttgtgaag-3'
L120I	5'-ttatgaaaagtgccatctct**a**tagctgaggatgaagaatgg-3'
	5'-ccattcttcatcctcagctatagagatggcacttttcataa-3'
F146V	5'-gaaaactcaaggagatg**g**tccccatcattgcccag-3'
	5'-ctgggcaatgatggggaccatctccttgagttttc-3'
K166T	5'-acttgaggcgggaagcagaga**cg**ggcaagcctgt-3'
	5'-acaggcttgcccgtctctgcttcccgcctcaagt-3'
G186S	5'-cctacagcatggatgtgattact**a**gcacatcatttgga-3'
	5'-tccaaatgatgtgctagtaatcacatccatgctgtagg-3'
S206N	5'-caagacccctttgtggaga**a**cactaagaagttcctaaaa-3'
	5'-ttttaggaacttcttagtgttctccacaaaggggtcttg-3'
F210L	5'-tttgtggagagcactaagaagtt**a**ctaaaatttggtttcttagatcc-3'
	5'-ggatctaagaaaccaaattttagtaacttcttagtgctctccacaaa-3'
K212R	5'-ggagagcactaagaagttcctaa**g**atttggtttcttagatccattat-3'
	5'-ataatggatctaagaaaccaaatcttaggaacttcttagtgctctcc-3'
G214D	5'-gcactaagaagttcctaaaatttg**a**tttcttagatccattatttctctc-3'
	5'-gagagaaataatggatctaagaaatcaaattttaggaacttcttagtgc-3'
L219F	5'-cctaaaatttggtttcttagatccatt**c**tttctctcaataatactctttccatt-3'
	5'-aatggaaagagtattattgagagaaagaatggatctaagaaaccaaattttagg-3'
I224T	5'-cttagatccattatttctctcaataa**cg**ctctttccattccttaccccagt-3'
	5'-actggggtaaggaatggaaagagcgttattgagagaaataatggatctaag-3'
V238I	5'-tccttaccccagtttttgaagcattaaat**a**tctctctgtttccaa-3'
	5'-ttggaaacagagagatatttaatgcttcaaaaactggggtaagga-3'
S239C	5'-ccccagtttttgaagcattaaatgtct**g**tctgtttccaaaag-3'
	5'-cttttggaaacagacagacatttaatgcttcaaaaactgggg-3'

L240V	5'-ccccagtttttgaagcattaaatgtctct**g**tgtttccaaaagata-3'
	5'-tatcttttggaaacacagagacatttaatgcttcaaaaactgggg-3'
K243R	5'-tttgaagcattaaatgtctctctgtttccaa**g**agataccataaatttttttaagtaaat-3'
	5'-atttacttaaaaaatttatggtatctcttggaaacagagagacatttaatgcttcaaa-3'
A296V	5'-gtctgatctggagctcg**t**agcccagtcaataatct-3'
	5'-agattattgactgggctacgagctccagatcagac-3'
V369I	5'-gaaacactcagattattccca**a**ttgctattagacttgagagga-3'
	5'-tcctctcaagtctaatagcaattgggaataatctgagtgtttc-3'
I371M	5'-cactcagattattcccagttgctat**g**agacttgagagga-3'
	5'-tcctctcaagtctcatagcaactgggaataatctgagtg-3'
T376V	5'-ccagttgctattagacttgagagg**gt**ttgcaagaaagatgttgaaatcaa-3'
	5'-ttgatttcaacatctttcttgcaaaccctctcaagtctaatagcaactgg-3'
S392V	5'-gggtattcattcccaaaggg**gt**aatggtggtgattccaactt-3'
	5'-aagttggaatcaccaccattacccctttgggaatgaataccc-3'
R415L	5'-agcctgaggagttcc**t**ccctgaaaggttcag-3'
	5'-ctgaacctttcagggaggaactcctcaggct-3'
D477S	5'-tgtaaagaaacacagatccccttgaaatta**ag**cacgcaaggacttctt-3'
	5'-aagaagtccttgcgtgcttaatttcaaggggatctgtgtttctttaca-3'
T478L	5'-aacacagatccccttgaaattagac**cta**caaggacttcttcaaccagaaaaac-3'
	5'-gtttttctggttgaagaagtccttgtaggtctaatttcaaggggatctgtgtt-3'
Q479G	5'-ccccttgaaattagacacg**gg**aggacttcttcaaccagaa-3'
	5'-ttctggttgaagaagtcctcccgtgtctaatttcaagggg-3'
CYP3A4	
F57L	5'-tattttgtcctaccataagggctt**a**tgtatgtttgacatggaatg-3'
	5'-cattccatgtcaaacatacataagcccttatggtaggacaaaata-3'
P107S	5'-gtcttcacaaaccggagg**ag**ttttggtccagtgggatt-3'
	5'-aatcccactggaccaaaactcctccggtttgtgaagac-3'
F108L	5'-caaaccggaggcctt**a**ggtccagtggg-3'
	5'-cccactggacctaaaggcctccggtttg-3'
D214G	5'-caccaagaagcttttaagatttg**g**ttttttggatccattctttctct-3'
	5'-agagaaagaatggatccaaaaaaccaaatcttaaaagcttcttggtg-3'
Δ423N[b]	5'-cctgaaagattcagcaagaag**---**aaggacaacatagatccttac-3'
	5'-gtaaggatctatgttgtcctt---cttcttgctgaatctttcagg-3'
L479T	5'-cagatccccctgaaattaagc**acg**ggaggacttcttcaaccagaa-3'
	5'-ttctggttgaagaagtcctcccgtgcttaatttcaggggggatctg-3'

[a] The underlined nucleotide(s) in bold represent the introduced mutations that were used to make the desired residue changes. [b] Three nucleotides were omitted in the primer sequence in order to delete residue N423 of CYP3A4.