

**Supplementary Table:** Official full names of pharmacogenes, ontology, biological function, and gene ID as seen in the National Center for Biotechnology Information (NCBI) database.

Symbol	Gene Name	Gene Ontology	Biological function	Gene ID as seen in NCBI
<b>ABCG2</b>	ATP binding cassette subfamily G member 2 (Junior blood group)	Plasma Membrane	transporter	9429
<b>ACE</b>	angiotensin I converting enzyme	Plasma Membrane	enzyme	1636
<b>ADD1</b>	adducin 1	Plasma Membrane	transporter	118
<b>ADRB2</b>	adrenoceptor beta 2	Plasma Membrane	receptor	154
<b>APOE</b>	apolipoprotein E	Extracellular Space	transporter	348
<b>ATIC</b>	5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase	Cytoplasm	enzyme	471
<b>CACNA1S</b>	calcium voltage-gated channel subunit alpha1 S	Plasma Membrane	ion channel	779
<b>CES1</b>	carboxylesterase 1	Cytoplasm	enzyme	1066
<b>CFTR</b>	CF transmembrane conductance regulator	Plasma Membrane	ion channel	1080
<b>CHRNA5</b>	cholinergic receptor nicotinic alpha 5 subunit	Plasma Membrane	receptor	1138
<b>CPS1</b>	carbamoyl-phosphate synthase 1	Cytoplasm	enzyme	1373
<b>CYP2A6</b>	cytochrome P450 family 2 subfamily A member 6	Cytoplasm	enzyme	1548
<b>CYP2B6</b>	cytochrome P450 family 2 subfamily B member 6	Cytoplasm	enzyme	1555
<b>CYP2C9</b>	cytochrome P450 family 2 subfamily C member 9	Cytoplasm	enzyme	1559
<b>CYP2C19</b>	cytochrome P450 family 2 subfamily C member 19	Cytoplasm	enzyme	1557
<b>CYP2D6</b>	cytochrome P450 family 2 subfamily D member 6	Cytoplasm	enzyme	1565
<b>CYP3A4</b>	cytochrome P450 family 3 subfamily A member 4	Cytoplasm	enzyme	1576
<b>CYP3A5</b>	cytochrome P450 family 3 subfamily A member 5	Cytoplasm	enzyme	1577
<b>CYP4F2</b>	cytochrome P450 family 4 subfamily F member 2	Cytoplasm	enzyme	8529
<b>DPYD</b>	dihydropyrimidine dehydrogenase	Cytoplasm	enzyme	1806

<b>EGFR</b>	epidermal growth factor receptor	Plasma Membrane	receptor	1956
<b>FCGR3A</b>	Fc fragment of IgG receptor IIIa	Plasma Membrane	receptor	2214
<b>FVL (F5)</b>	Factor V Leiden	Extracellular Space	coagulation cofactor	2153
<b>GBA</b>	glucosylceramidase beta	Cytoplasm	enzyme	2629
<b>G6PD</b>	glucose-6-phosphate dehydrogenase	Cytoplasm	enzyme	2539
<b>HLA-A</b>	major histocompatibility complex, class I, A	Plasma Membrane	antigen presentation	3105
<b>HLA-B</b>	major histocompatibility complex, class I, B	Plasma Membrane	antigen presentation	3106
<b>HLA-C</b>	major histocompatibility complex, class I, C	Plasma Membrane	antigen presentation	3107
<b>HLA- DPB1</b>	major histocompatibility complex, class II, DP beta 1	Plasma membrane	antigen presentation	3115
<b>HLA-DRB1</b>	major histocompatibility complex, class II, DR beta 1	Plasma membrane	antigen presentation	3123
<b>HPRT1</b>	hypoxanthine phosphoribosyltransferase 1	Cytoplasm	enzyme	3251
<b>IFNL3 (IL28B)</b>	interferon lambda 3	Extracellular Space	cytokine	282617
<b>IFNL4</b>	interferon lambda 4	Cytoplasm	cytokine	101180976
<b>ITPA</b>	inosine triphosphatase	Cytoplasm	enzyme	3704
<b>KIF6</b>	kinesin family member 6	Nucleus	microtubule-based movement	221458
<b>MTHFR</b>	methylenetetrahydrofolate reductase	Cytoplasm	enzyme	4524
<b>MT-RNR1</b>	mitochondrially encoded 12S RNA	Cytoplasm	insulin sensitivity regulator	4549
<b>NAGS</b>	N-acetylglutamate synthase	Cytoplasm	enzyme	162417
<b>NAT2</b>	N-acetyltransferase 2	Cytoplasm	enzyme	10
<b>NUDT15</b>	nudix hydrolase 15	Cytoplasm	enzyme	55270
<b>OTC</b>	ornithine carbamoyltransferase	Cytoplasm	enzyme	5009
<b>POLG</b>	DNA polymerase gamma, catalytic subunit	Cytoplasm	enzyme	5428
<b>RYR1</b>	ryanodine receptor 1	Cytoplasm	ion channel	6261
<b>SCN1A</b>	sodium voltage-gated channel alpha subunit 1	Plasma Membrane	ion channel	6323
<b>SLC19A1</b>	solute carrier family 19 member 1	Plasma Membrane	transporter	6573
<b>SLCO1B1</b>	solute carrier organic anion transporter family member 1B1	Plasma Membrane	transporter	10599
<b>TNF-α</b>	tumor necrosis factor-alpha	Intracellular	cytokine	7124

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<b>TPMT</b>	thiopurine S-methyltransferase	Cytoplasm	enzyme	7172
<b>UGT1A1</b>	UDP glucuronosyltransferase family 1 member A1	Cytoplasm	enzyme	54658
<b>VKORC1</b>	vitamin K epoxide reductase complex subunit 1	Cytoplasm	enzyme	79001