



primidon		CYP2C19	
progesteron		CYP2C19, CYP3A4	
proguanil		CYP2C19	CYP3A4
promethazine		CYP2D6	
propafenon	CYP2D6	CYP1A2, CYP3A4	
propofol		CYP2B6, CYP2C9	
propranolol		CYP1A2, CYP2C19, CYP2D6, CYP3A4	
quetiapine	CYP3A4		CYP2D6
rabeprazol		CYP2C19	
repaglinide		CYP2C8	CYP3A4
rilpivirine		CYP3A4	
riluzol		CYP1A2	
risperidon	CYP2D6		CYP3A4
ritonavir		CYP3A4	CYP2D6
rivaroxaban		CYP3A4	
roflumilast		CYP1A2, CYP3A4	
ropivacaïne		CYP1A2	
rosuvastatine	SLCO1B1	ABCG2	
roxolitinib		CYP3A4	CYP2C9
salmeterol		CYP3A4	
saquinavir		CYP3A4	
selegiline		CYP2B6	CYP2A6, CYP3A4
selexipag		CYP2C8, CYP3A4	
sertraline	CYP2C19	CYP2D6, CYP2C9, CYP2B6, CYP3A4	
sildenafil		CYP3A4	CYP2C9
simvastatine	SLCO1B1	CYP3A4 (a)	
siponimod**	CYP2C9	CYP3A4	
sirolimus		CYP3A4	
sorafenib		CYP2C8, CYP3A4, UGT1A9, UGT1A1	
sotorasib		CYP2C8, CYP3A4, CYP3A5	
sunitinib		CYP3A4	
suxamethonium	BChE		
tacrolimus	CYP3A5	CYP3A4	
tamoxifen	CYP2D6 (a)	CYP3A4 (a)	CYP2C19, CYP2C9
tegafur **	DPYD	CYP2A6	
temsirolimus		CYP3A4	
teniposide		CYP2C19	
tetrabenazine		CYP2D6	
theofylline		CYP1A2, CYP2E1	CYP3A4
ticagrelor		CYP3A4	

timolol		CYP2D6	CYP2C19
tioguanine **	TPMT, NUDT15		
tizanidine		CYP1A2	
tofacitinib		CYP3A4	CYP2C19
tolbutamide		CYP2C9	
tolvaptan		CYP3A4, CYP3A5	
tramadol	CYP2D6 (a)	CYP3A4, CYP2B6	
trazodon		CYP3A4	CYP2D6
triamteren		CYP1A2	
tucatinib		CYP2C8	CYP3A4
umeclidinium		CYP2D6	
valproïnezuur		CYP2C9, CYP2C19, POLG	
velpatasvir		CYP2B6, CYP3A4	
venlafaxine	CYP2D6	CYP3A4, CYP2C19	
verapamil		CYP3A4, CYP1A2, CYP2C8, CYP2C9	
vincristine		CYP3A4, CYP3A5	
voriconazol	CYP2C19	CYP3A4, CYP2C9	
vortioxetine		CYP2D6	CYP2C9, CYP3A4, CYP3A5
warfarine	CYP2C9, VKORC1		CYP1A2, CYP2C19
zolmitriptan		CYP1A2	
zolpidem		CYP3A4	
zuclopentixol	CYP2D6		

Tekst	Verklaring	Actie
CYP2D6	Enzym betrokken bij afbraak, KNMP (dosering) advies beschikbaar	Overweeg test voor start therapie
CYP2D6 (a)	Enzym betrokken bij geneesmiddel activatie, KNMP (dosering) advies beschikbaar	Overweeg test voor start therapie
CYP2D6 (a)	Enzym betrokken bij geneesmiddel activatie, geen (dosering) advies beschikbaar of (nog) niet beoordeeld	Testen bij bijwerkingen of geen effect
CYP2D6	Enzym betrokken bij afbraak, geen (dosering) advies beschikbaar of (nog) niet beoordeeld door KNMP	Testen bij bijwerkingen of geen effect
CYP2D6	Enzym speelt beperkte rol bij het metabolisme	Indien hoofdenzymen onvoldoende verklaren
Geneesmiddel**	Sterk aanbevolen om te testen voor aanvang therapie	

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Klinisch Relevante Enzymen

2024

erasmusmc.nl/farmacogenetica

Erasmus MC



Geneesmiddel	KLINISCH RELEVANTE ENZYMEN		ENZYMEN
	Met dosis advies	Zonder dosis advies	Minor contribution
5-FU **	DPYD		
abacavir **	HLA-B*5701		
acenocoumarol	VKORC1	CYP2C9	CYP1A2, CYP4F2
alfentanil		CYP3A4	
allopurinol	HLA-B*5801, ABCG2		
alprazolam		CYP3A4	
amfetamine		CYP2D6	
amitriptyline	CYP2D6	CYP2C19	CYP1A2, CYP2C9
amlodipine		CYP3A4	
apixaban		CYP3A4, CYP3A5	
apremilast		CYP3A4	CYP1A2, CYP2A6
aprepitant		CYP3A4	CYP1A2, CYP2C19
aripiprazol	CYP2D6	CYP3A4	
articaïne		BChE	
atazanavir	UGT1A1	CYP3A4	
atomoxetine	CYP2D6	CYP2C19	
atorvastatine	SLCO1B1	CYP3A4	
axitinib		CYP3A4	CYP1A2, CYP2C19, UGT1A1
azathioprine **	TPMT, NUDT15		
bisoprolol		CYP2D6, CYP3A4	
brexpiprazol	CYP2D6	CYP3A4	
bupropion		CYP2B6	
buspiron		CYP3A4	
brivaracetam		CYP2C19	
caffeïne		CYP1A2, CYP3A4	
capecitabine **	DPYD		
carbamazepine	HLA-B*1502, B*1511, HLA-A*3101	CYP3A4	
cariprazine		CYP2D6	
carvedilol		CYP2C9, CYP2D6	
celecoxib	CYP2C9		CYP3A4



chlooramfenicol		CYP2C19	
chloorpromazine		CYP2D6, CYP3A4	
chloroquine		CYP2C8	CYP2D6
ciclosporine		CYP3A4	
cisapride		CYP3A4	
citalopram	CYP2C19	CYP2D6, CYP3A4	
claritromycine		CYP2C19, CYP3A4	
clobazam		CYP3A4	CYP2C19
clomipramine	CYP2C19, CYP2D6		CYP3A4, CYP1A2
clonidine		CYP2D6	
clopidogrel **	CYP2C19 (a)		CYP3A4
clozapine		CYP1A2	CYP3A4, CYP2C19, CYP2D6
cocaïne		BChE	CYP3A4, CYP2D6
codeïne	CYP2D6 (a)	CYP3A4	
cyclofosfamide		CYP2B6 (a), CYP2C19 (a), CYP3A4	
dabrafenib		CYP2C8, CYP3A4	
dapson		CYP3A4, CYP2C9	
dasatinib		CYP3A4	
dexamethason		CYP3A4	
dextromethorfan		CYP2D6, CYP3A4	
diazepam		CYP2C19, CYP3A4	
diclofenac		CYP2C9	
diltiazem		CYP3A4	
docetaxel		CYP3A4	
dolutegravir		UGT1A1	CYP3A4
domperidon		CYP1A2, CYP2E1, CYP3A4	
donepezil		CYP2D6, CYP3A4	
doxepine	CYP2D6		CYP1A2, CYP3A4, CYP2C19
duloxetine		CYP1A2, CYP2D6	
efavirenz	CYP2B6	CYP3A4	
eliglustat **	CYP2D6	CYP3A4	
enzalutamide		CYP2C8	CYP3A4, CYP3A5
eplerenon		CYP3A4	
erytromycine		CYP3A4	
escitalopram	CYP2C19	CYP2D6, CYP3A4	
esketamine		CYP2B6, CYP3A4	CYP2C9
esomeprazol		CYP2C19, CYP3A4	
estradiol		CYP1A2	
felodipine		CYP3A4	
fenacetine		CYP1A2	

fenobarbital		CYP2C19	
fenprocoumon	VKORC1	CYP2C9	CYP1A2, CYP4F2
fantanyl		CYP3A4	
fentyoïne **	CYP2C9**, HLA-B*1502	CYP2C19	
finasteride		CYP3A4	
flecainide	CYP2D6		
flucloxacilline	HLA-B*5701		
flucytosine	DPYD		
flufenazine		CYP2D6	CYP1A2
fluoxetine		CYP2C9, CYP2D6	CYP2C19, CYP3A4, CYP3A5
flupentixol		CYP2D6	
fluvastatine		CYP2C9, CYP3A4	CYP2C8, CYP2D6
fluvoxamine		CYP1A2, CYP2D6	
gefitinib		CYP2D6, CYP3A4	
gentamicine		MT-RNR1	
glibenclamide		CYP2C9	
glimepiride		CYP2C9	
guanfacine		CYP3A4, CYP3A5	
haloperidol	CYP2D6	CYP3A4	CYP1A2
hexobarbital		CYP2C19	
hydrocortison		CYP3A4	
ibuprofen		CYP2C9	CYP2C8, CYP2C19, CYP3A4
ibrutinib		CYP3A4	CYP2D6
ifosfamide		CYP2B6, CYP3A4 (a)	
imatinib		CYP3A4	
imipramine	CYP2C19, CYP2D6		CYP1A2, CYP3A4
indinavir		CYP3A4	
indometacine		CYP2C9	CYP2C19
irbesartan		CYP2C9	CYP3A4
irinotecan **	UGT1A1	CYP3A4	
isavuconazol		CYP3A4, CYP3A5	
kinidine		CYP3A4	
labetalol		CYP2C19	
lamotrigine	HLA-B*1502	UGT1A4	
lansoprazol	CYP2C19	CYP3A4	
lercanidipine		CYP3A4	
lidocaïne		CYP1A2, CYP3A4	CYP2B6, CYP2D6
lithium		GADL	
losartan		CYP2C9, CYP3A4	
lovastatine		CYP3A4 (a), SLCO1B1	
mavacamten**	CYP2C19	CYP3A4	CYP2C9

melatonine		CYP1A2, CYP1A1	CYP2C19
meloxicam		CYP2C9	CYP3A4
mercaptapurine **	TPMT, NUDT15		
methadon		CYP3A4	CYP2B6, CYP2D6
methotrexaat		SLCO1B1, MTHFR	
metoclopramide		CYP2D6	
metoprolol	CYP2D6		
mexiletine		CYP2D6	CYP1A2
midazolam		CYP3A4	CYP3A5, CYP3A7
mirtazapine		CYP1A2, CYP2D6, CYP3A4	
mivacurium	BChE		
moclobemide		CYP2C19, CYP2D6	
mycofenolzuur		UGT1A9	
nabumeton		CYP1A2 (a)	
naproxen		CYP1A2, CYP2C9	
neбиволol		CYP2D6	
nevirapine		CYP2B6, CYP3A4	CYP2C9, CYP2D6, CYP3A5
nifedipine		CYP3A4	CYP1A2, CYP2A6
nilotinib		CYP3A4, UGT1A1 (bili)	CYP2C8
nilutamide		CYP2C19	
nitrendipine		CYP3A4	
nortriptyline	CYP2D6	CYP1A2, CYP2C19	
olaparib		CYP3A4	
olanzapine		CYP1A2, CYP2D6, UGT1A4, UGT1A9	
olodaterol		CYP2C8, CYP2C9	CYP3A4
omeprazol	CYP2C19	CYP3A4	
ondansetron		CYP1A2, CYP2D6, CYP3A4	
osimertinib		CYP3A4, CYP3A5	
oxcarbazepine	HLA-B*1502		
oxycodon		CYP2D6, CYP3A4	
paclitaxel		CYP2C8, CYP3A4	
pantoprazol	CYP2C19		CYP3A4, CYP2D6, CYP2C9
paracetamol		CYP2E1	CYP1A2
paroxetine	CYP2D6		CYP1A2, 2C19, 3A4, 3A5
perfenazine		CYP2D6	
pimozide	CYP2D6	CYP1A2, CYP3A4	
pirfenidon		CYP1A2	CYP2C9, CYP2C19, CYP2D6, CYP2E1
piroxicam		CYP2C9	
pomalidomide		CYP1A2, CYP3A4	CYP2C19, CYP2D6
ponatinib		CYP3A4	CYP2C8, CYP2D6, CYP3A5
prasugrel		CYP2B6 (a), CYP3A4 (a)	CYP2C19 (a), CYP2C9 (a)

