



## **Targeted Genes & Methodology Details for Helix Pharmacogenomics (PGx) Mental Health Panel**

The following applies to the Helix Pharmacogenomics (PGx) Mental Health Panel. Next-generation sequencing is performed to test for the presence of star allele solutions in the genes analyzed, according to the reportable range listed.

This list is current from June 2024 to the present. For questions regarding genes, reference transcripts, or specific regions covered, contact Helix Customer Service at (844) 211-2070.

Catalog Number: PMNH1

<b>Gene</b>	<b>Reportable Range</b>
<i>CYP2C9</i>	*1-*61
<i>CYP2C19</i>	*1-*19, *22-*26, *28-*39
<i>CYP3A4</i>	*1-*24, *26, *28-*38
<i>CYP3A5</i>	*1, *3, *6-*9
<i>CYP2D6</i>	*1-*15, *4N, *17-*65, *68-*75, *81, *83-*114
<i>HLA-B</i>	*15:02
<i>SLCO1B1</i>	*1-*16, *19, *20, *23-*34, *36-*44, *47-*49

Sensitivity may be reduced for *CYP2D6*\*13 alleles and *SLCO1B1*\*49.

## Targeted Genes & Methodology Details for PGx Mental Health Test (continued)

### Clinical return of results:

Medication	Gene	Drug Class
amphetamine	CYP2D6	Amphetamine
carbamazepine (Focalin)	HLA-B*15:02	Anticonvulsant
lamotrigine (Lamictal)	HLA-B*15:02	Anticonvulsant
oxcarbazepine (Trileptal)	HLA-B*15:02	Anticonvulsant
aripiprazole (Abilify)	CYP2D6	Antipsychotic (atypical)
quetiapine (Seroquel)	CYP3A4	Antipsychotic (atypical)
risperidone (Risperdal)	CYP2D6	Antipsychotic (atypical)
haloperidol (Haldol)	CYP2D6	Antipsychotic (conventional)
pimozide (Orap)	CYP2D6	Antipsychotic (conventional)
vortioxetine (Trintellix)	CYP2D6	Serotonin modulator
venlafaxine (Effexor)	CYP2D6	Serotonin/Norepinephrine Reuptake Inhibitor (SNRI)
citalopram (Celexa)	CYP2C19	SSRI
escitalopram (Lexapro)	CYP2C19	SSRI
fluvoxamine (Luvox)	CYP2D6	SSRI
paroxetine (Paxil)	CYP2D6	SSRI
sertraline (Zoloft)	CYP2C19	SSRI
amitriptyline (Elavil)	CYP2C19	TCA
	CYP2D6	TCA
clomipramine (Anafranil)	CYP2D6	TCA
	CYP2C19	TCA
desipramine (Norpramin)	CYP2D6	TCA
doxepin (Sinequan)	CYP2D6	TCA
	CYP2C19	TCA
imipramine (Tofranil)	CYP2D6	TCA
	CYP2C19	TCA
trimipramine (Surmontil)	CYP2D6	TCA
	CYP2C19	TCA

## Targeted Genes & Methodology Details for PGx Mental Health Test (continued)

### Research return of results:

For the following drugs, only the star allele solution and metabolizer statuses are returned. There is no guidance provided due to insufficient scientific evidence.

Medication	Gene	Drug Class
aripiprazole (Abilify)	CYP3A4	Antipsychotic
brexpiprazole (Rexulti)	CYP2D6	Antipsychotic
	CYP3A4	Antipsychotic
cariprazine (Vraylar)	CYP3A4	Antipsychotic
clozapine (Clozaril)	CYP2D6	Antipsychotic
	CYP3A4	Antipsychotic
iloperidone (Fanapt)	CYP2D6	Antipsychotic
	CYP3A4	Antipsychotic
lurasidone (Latuda)	CYP3A4	Antipsychotic
perphenazine (Trilafon)	CYP2D6	Antipsychotic
pimozide (Orap)	CYP3A4	Antipsychotic
quetiapine (Seroquel)	CYP3A5	Antipsychotic
thioridazine (Mellaril)	CYP2D6	Antipsychotic
ziprasidone (Geodon)	CYP3A4	Antipsychotic
bupirone (BuSpar)	CYP3A4	Azapirone (anxiolytic)
alprazolam (Xanax)	CYP3A4	Benzodiazepine
clonazepam (Klonopin)	CYP3A4	Benzodiazepine
diazepam (Valium)	CYP2C19	Benzodiazepine
	CYP3A4	Benzodiazepine
triazolam (Halcion)	CYP3A4	Benzodiazepine
zolpidem (Ambien)	CYP3A4	CNS depressant
methylphenidate (Ritalin, Concerta)	CYP2D6	CNS Stimulant
buprenorphine (Buprenex, Butrans, Probuphine)	CYP3A4	Opioid agonist

# Targeted Genes & Methodology Details for PGx Mental Health Test (continued)

## Research return of results:

For the following drugs, only the star allele solution and metabolizer statuses are returned. There is no guidance provided due to insufficient scientific evidence.

Medication	Gene	Drug Class
flibanserin (Addyi)	CYP2C19	SARI
	CYP2C9	SARI