IDgenetix® Test Report Features

IDgenetix
MAKING PERSONALIZED MEDICINE POSSIBLE®

Laboratory Test Report

Patient Name:	Patient ID:	Age:	Gender:	DOB:
Doe, Jane	FC718-B	71	Female	10/14/1950

Sample Type:	Date Collected:	Date Received:	Ordering Physician:	Client/Account #:
Buccal Swab	02/08/2022	02/10/2022	Cullors Ali	CAli910

Test Ordered:	Indication:	Report Date:	Report Status:
NeuroIDgenetix 902	NeuroIDgenetix	02/17/2022	Draft

PHARMACOGENETIC TESTING BASED TREATMENT GUIDANCE

Depression Drug Therapy Selection & Dosing Guidance

1

Use as Directed
Drug
paroxetine (SSRI) [1]
desvenlafaxine (SNRI)
duloxetine (SNRI)
levomilnacipran (SNRI)
venlafaxine (SNRI)
bupropion (NDRI) [1]
mirtazapine (NaSSA) [1]
trazodone (SARI)
vilazodone (SRI)
vortioxetine (Serotonin Modulator and Stimulator)
desipramine (TCA) [1]
nortriptyline (TCA) [1]
aripiprazole (SGA) [1]
brexpiprazole (SGA)
quetiapine (SGA) [1]

2 3

Use With Caution and/or Increased Monitoring	
Drug	Dosing
▸▸ citalopram	Consider dose adjustment or alternate drug. Per CPIC guideline, consider a 50% reduction of recommended starting dose and titrate to response or select alternative drug not predominantly metabolized by CYP2C19 (CYP2C19 PM). Additionally, drug label cautions 20mg/day maximum dose given increased QT prolongation risk. PubMedID: 25974703
escitalopram	Consider dose adjustment or alternate drug. Per CPIC guideline, consider a 50% reduction of recommended starting dose and titrate to response or select alternative drug not predominantly metabolized by CYP2C19 (CYP2C19 PM). Greatly reduced metabolism, higher plasma concentrations may increase the probability of side effects. PubMedID: 25974703
sertraline	Consider dose adjustment or alternate drug. Per CPIC guideline, consider a 50% reduction of recommended starting dose and titrate to response or select alternative drug not predominantly metabolized by CYP2C19. Greatly reduced metabolism, higher plasma concentrations may increase the probability of side effects (CYP2C19 PM). PubMedID: 25974703
amitriptyline [1]	Consider dose adjustment or alternate drug. Consider 50% reduction of recommended starting dose (CYP2C19 PM). Utilize therapeutic drug monitoring to guide dose adjustments. CPIC Guideline PubMedID: 23486447
doxepin [1]	Consider dose adjustment or alternate drug. Consider 50% reduction of recommended starting dose (CYP2C19 PM). Utilize therapeutic drug monitoring to guide dose adjustments. CPIC Guideline PubMedID: 23486447
imipramine [1]	Consider dose adjustment or alternate drug. Consider 50% reduction of recommended starting dose (CYP2C19 PM). Utilize therapeutic drug monitoring to guide dose adjustments. CPIC Guideline PubMedID: 23486447
fluoxetine *	Risk of metabolic interaction with citalopram
fluvoxamine *	Risk of metabolic interaction with citalopram

4

LABORATORY RESULTS AND PHARMACOGENETIC TEST ANALYSIS

Gene	5 Star Allele Genotype/Diplotype	6 Metabolizer Phenotype PM/IM/EM/UM	7 Clinically Significant
ABCB1 [NM_000927.4:c.3435C>T]	T/T	N/A	No
ADRA2A -1291C>G [NM_000681.3:c.-1252G>C]	C/G	N/A	No
COMT [NM_000754.3:c.472G>A]	A/G	N/A	Yes
CYP1A2	*1/*1	EM	No
CYP2C19	*2/*2	PM	Yes
CYP2C9	*1/*1	EM	No
CYP2D6	*1/*1	EM	No
CYP3A4	*1/*1	EM	No
CYP3A5	*1/*1	EM	No
HTR2A [NM_000621.4:c.-998G>A]	A/G	N/A	No
HTR2A [NM_000621.4:c.614-2211T>C]	C/T	N/A	No
HTR2C [NM_000868.2:c.-697G>C]	C/G	N/A	No
HTR2C [NM_000868.2:c.-759C>T]	C/T	N/A	No
HTR2C [NM_000868.2:c.68G>C]	G/G	N/A	No
MTHFR A1298C [NM_005957.3:c.1286A>C]	A/C	N/A	No
MTHFR C677T [NM_005957.3:c.665C>T]	C/T	N/A	No
NAT2	*4/*4	RA	No
OPRM1 [NM_000914.3:c.118A>G]	A/A	N/A	No
SLC6A4 5-HTTLPR	Long/Long	N/A	No
SLC6A4 [NM_001045.4:c.-1760C>T]	C/C	N/A	No

Laboratory Director:	Report Approver:	Report Approval Date:	*** Electronic Signature On file ***

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ALTHEA Dx
The Power to Heal

IDG-0098, Rev. 02

1 **"Use as Directed" Medications:** Among the genes analyzed, no genetic variants or metabolic interactions were identified that would suggest a need for increased caution or dose adjustments.

2 **"Use with Caution and/or Increased Monitoring" Medications:** One or more genetic variants or metabolic interactions have been identified that would indicate a need for increased caution, dose adjustment or selection of alternate medication.

3 **Medications** the patient is **currently taking** are highlighted.

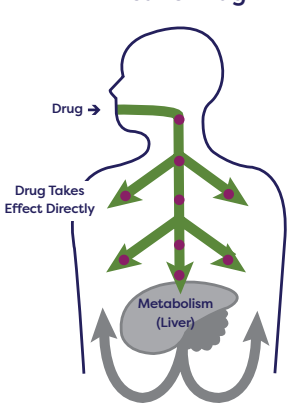
4 **The list of patient medications provided** at the time of testing is used to display potential metabolic interactions with medications evaluated in the test panel.

5 **Genes, Genotype/Diplotype:** Genes and genetic variants analyzed and the patient's genetic variant result.

6 **Predicted drug metabolism phenotype.** *See back of test for definition of different metabolizer phenotypes.

7 **Clinically significant:** "Yes" indicates genetic variant impacts one or more messages in Use with Caution.

Metabolizer Phenotypes



*Adapted from CPMED

Metabolizer Phenotype	Active Drug
PM Poor Metabolizer	• ↑Systemic exposure • ↑Side effects/toxicity • ↓Dose requirements
IM Intermediate Metabolizer	• ↑Systemic exposure • ↑Side effects/toxicity • ↓Dose requirements
EM Extensive Metabolizer	• Standard dosing appropriate
UM Ultra-Rapid Metabolizer	• ↓Systemic exposure • ↓Side effects/toxicity • ↑Dose requirements

Sample Collection Process

STEP 1

Rinse mouth with water, then swab inside both cheeks and gums firmly and vigorously for 40 seconds.

STEP 2

On Barcode Sticker A, write patient name and date of birth. Place it on the Swab Container. For at-home sample collection, please review and sign Patient Consent Form.

STEP 3

Send Collection Kit back using prepaid FedEx label and packaging.

Gene Overview

Gene	Protein Function	Potential Clinical Significance	Medication Class or Condition
ABCB1 (ATP Binding Cassette B1)	Transports substrates across extra- and intra-cellular membranes	Reduces response	Opioids
ADRA2A (Alpha 2A Adrenergic Receptor)	Regulates neurotransmitter release from adrenergic neurons in CNS	Treatment response or side effects	ADHD
COMT (Catechol-O-Methyl Transferase)	Degrades catecholamine neurotransmitters: dopamine, epinephrine & norepinephrine	Emotional & behavioral effects	ADHD meds, opioids & various others
CYP1A2, CYP2C9, CYP2C19, CYP2D6, CYP3A4, CYP3A5 (Cytochrome P450 Family)	Enzymes responsible for drug metabolism	Reduced efficacy or increased risk of side effects & toxicity	All therapeutic medication classes
HTR2A (Serotonin Receptor Subtype A)	Receptor for serotonin and various other drugs	Reduced response or increases rate of side effects	SSRIs & antipsychotics
HTR2C (Serotonin Receptor Subtype C)	Regulates metabolic homeostasis	Weight gain	Antipsychotics
MTHFR (Methylenetetrahydrofolate Reductase)	Activates folate/folic acid to a form the body can use	Benefit for adjunctive therapy with L-methylfolate	Depression & anxiety
NAT2 (N-Acetyltransferase 2)	Enzyme responsible for drug metabolism	Reduced response or increases rate of side effects	Pain
OPRM1 (Mu-Opioid Receptor)	Primary site of action for commonly used opioids	Various response to opioids & achieving analgesia	Opioids
SLC6A4 (Serotonin Transporter)	Responsible for reuptake of serotonin into presynaptic neuron	Reduced response or increases rate of side effects	SSRIs

How Much Does an IDgenetix® Test Cost?

Medicare (Part B) Covered Tests:
You will have a $0 out-of-pocket cost.

Medicare Advantage Covered Tests:
You may have to cover a portion of the cost. (typically $330 or less)

Commercial or Other Insurance:
Out-of-Network plans vary, but you may be expected to cover a portion of the cost (typically $330 or less). In-Network claims are subject to applicable co-pay, co-insurance, and deductible amounts. AltheaDx is in-network with the Multiplan Network; your insurance provider/insurance ID card will indicate the specific network (i.e., MultiPlan, PHCS, Beech Street, AMN/HMN/RAN, IHP or ValuePoint).

Participating Medicaid States:
Normally, you will have a $0 out of pocket cost.

Uninsured:
Please contact us to find out how we can help.

Note: AltheaDx bills your insurance for the cost of the IDgenetix® test. If you have any questions, please contact an IDgenetix Billing Specialist at 1-855-MY-PGX-ID or billing@idgenetix.com and we will be happy to assist you further. For those who qualify, we offer a financial assistance program to help with these out-of-pocket costs.

Contact our customer service center at **1-855-MY-PGX-ID (1-855-697-4943) or support@idgenetix.com**
or speak to your local IDgenetix account manager to set up an online account and obtain IDgenetix sample collection kits.

IDgenetix Our privacy policy and additional information are available at **www.idgenetix.com**

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