Medical Diagnostic Laboratories

Test Menu: BRCA & Pharmacogenomic Testing

Test No.	Test Name
BRCA: SALIVA	
2600	Breast Cancer High Risk Extended Panel Plus: 15 genes (BRCA1, BRCA2, CDH1, PTEN, TP53, STK11, ATM, CHEK2, PALB2, BARD1, BRIP1, RAD51C, RAD51D, NF1, NBN) by Gene Sequencing with BRCA1/2 Deletion/Duplication Analysis
1279	Lynch Syndrome Gene Panel: 5 Genes (EPCAM*, MLH1, MSH2, MSH6, PMS2) by Gene Sequencing with Deletion/ Duplication Analysis (*Deletion/Duplication Analysis of Exon8-9 only)
2601	BRCA1/2: Comprehensive BRCA Analysis by Gene Sequencing with Deletion/Duplication Analysis
1222	BRCA1/2: Ashkenazi Jewish 3-site Mutation Analysis
1236	BRCA1/2: Ashkenazi Jewish 3-site Mutation Analysis (Reflex to Breast Can cer High Risk Extended Panel Plus) (* If the Ashkenazi Jewish 3-site Mutation Analysis is negative, reflex to 2600.)
1224	Gene Specific Site Analysis: Specify Gene: _____ Variant (mutation):_____

Test No.	Test Name
HEREDITARY GENETICS	
2605	Hereditary Melanoma Cancer Panel (10 genes) by Next Generation Sequencing (BAP1, BRCA1, BRCA2, CDK4, CDKN2A, MITF, POT1, PTEN, RB1, TP53)
2603	Hereditary Prostate Cancer Panel (18 genes) by Gene Sequencing and Deletion/Duplication Analysis (ATM, BRCA1, BRCA2, BRIP1, CHEK2, EPCAM, FANCA, HOXB13,MITF, MLH1, MSH2, MSH6, NBN, PALB2, PMS2, RAD51C, RAD51D, TP53)
2604	Hereditary Renal Cancer Panel (19 genes) by Gene Sequencing and Deletion/Duplication Analysis (BAP1, EPCAM, FH, FLCN, MET, MITF, MLH1, MSH2, MSH6, PALB2, PMS2, PTEN, SDHB, SDHC, SDHD, TP53, TSC1, TSC2, VHL)
2606	Hereditary Colorectal Cancer Panel: 26 genes (ATM, APC, AXIN2, BLM, BMPR1A, CDH1, CHEK2, EPCAM*, FLCN, GALNT12, GREM1, MLH1, MSH2, MSH3, MSH6, MUTYH, NTHL1, PMS2, POLD1, POLE, PTEN, RNF43, RPS20, SMAD4, STK11, TP53) by Gene Sequencing with Deletion/Duplication Analysis
2607	Hereditary Gastric Cancer Panel: 15 genes (APC, BMPR1A, CDH1, EPCAM*, MLH1, MSH2, MSH6, NF1, PMS2, SDHB, SDHC, SDHD, SMAD4, STK11, TP53) by Gene Sequencing with Deletion/Duplication Analysis
2608	Hereditary Pancreatic Cancer Panel: 16 genes (APC, ATM, BMPR1A, BRCA1, BRCA2, CDK4, CDKN2A, EPCAM*, MLH1, MSH2, MSH6, PALB2, PMS2, SMAD4, STK11, TP53) by Gene Sequencing with Deletion/Duplication Analysis
2602	Lynch Syndrome Gene Panel: 5 Genes (EPCAM*, MLH1, MSH2, MSH6, PMS2) by Gene Sequencing with Deletion/ Duplication Analysis

Test No.	Test Name
PHARMACOGENOMICS - SALIVA	
CARDIOLOGY	
3101	Antiplatelet Agents - Aspirin, Cilostazol, Clopidogrel, Prasugrel, Ticagrelor (ABCB1, CYP1A2, CYP2B6, CYP2C9, CYP2C19, CYP2D6, CYP3A4, CYP3A5, ITGB3, SLOC1B1)
3102	Statins -Atorvastatin, Fluvastatin, Lovastatin, Pitavastatin, Pravastatin, Rosuvastatin, Simvastatin (ABCB1, ABCG2, APOE, CYP2C9, CYP2D6, CYP3A4, CYP3A5, KIF6, MTHFR, SLCO1B1)
3103	Anticlotting Agents - Acenocoumarol, Fluindione, Phenprocoumon, Warfarin (CYP2C9, CYP2C19, CYP2D6, VKORC1)
3104	Thrombophilia - Susceptibility to Factor II, Factor V Leiden (F2, F5, MTHFR)
3105	Calcium Channel Blockers - Amlodipine, Nifedipine (CYP3A4, CYP3A5)
3106	Beta Blockers - Bufuralol, Carvedilol, Metoprolol, Propranalol, Talinolol, Timolol (ABCB1, CYP2D6, UGT1A1)
3107	Congestive Heart Failure - Digoxin (ABCB1)
3108	Antiarrhythmics - Flecainide, Propafenone (CYP2D6)
3109	Antihypertensives - Benazepril, Debrisoquine, Enalapril, Irbesartan, Losartan, Olmesartan, Verapamil (ABCB1, CYP2D6, CYP2C9, MTHFR, SLOC1B1)

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Test Menu: Pharmacogenomics

Test No.	Test Name
PAIN MANAGEMENT	
3201	Pain Management-General-Alfentanil, Buprenorphine, Codeine, Fentanyl, Hydrocodone, Ketamine, Lornoxicam, Methadone, Morphine, Opioids, Oxycodone, Sumatriptan, Tramadol (ABCB1, COMT, CYP2B6, CYP2C9, CYP2D6, CYP3A4, DBH, OPRD1, OPRM1)
3202	Sedatives & Relaxants, including muscle relaxants-Carisoprodol, Dextromethorphan, Midazolam, Propofol, Rocuronium, Tolperisone (CYP2B6, CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, SLCO1B1)
MALIGNANT DISEASE	
3301	Alkaloids-Vincristine (ABCB1)
3302	Alkylating Agents-Cyclophosphamide (CYP2B6, CYP2C19, CYP3A4, MTHFR, SLCO1B1, TMPT)
3303	Antimetabolites-Cytarabine, Fludarabine, Mercaptopurine, Methotrexate, Silibinin (ABCB1, ABCG2, MTHFR, SLCO1B1, TPMT)
3304	Anthracyclines-Anthracyclines (gen), Doxorubicin, Epirubicin, Idarubicin (ABCB1, CYP2B6, CYP2C19, SLCO1B1)
3305	inase Inhibitors-Gefitinib, Icotinib, Imatinib, Sorafenib, Sunitinib (ABCB1, ABCG2, CYP2B6, CYP2C19, CYP2D6, CYP3A4, CYP3A5, SLCO1B1)
3306	Platinum Derivatives-Carboplatin, Cisplatin, Oxaliplatin, Platinum Compounds (gen) (ABCB1, ABCG2, CYP3A5, MTHFR, TPMT)
3307	Steroid Hormone Inhibitors-Exemestane, Mitotane, Tamoxifen (ABCB1, CYP2B6, CYP2C19, CYP2D6, CYP3A4)
3308	Taxanes-Docetaxel, Paclitaxel, Taxanes (gen) (ABCB1, CYP2C8, CYP3A4, CYP3A5, SLCO1B1)
3309	Topoisomerase Inhibitors-Etoposide, Irinotecan (ABCB1, SLOC1B1, UGT1A1)
3310	Uracil Derivatives-Capecitabine, Fluorouracil, Folfox, Folox, Leucovorin, Tegafur, Xelox (ABCB1, ABCG2, DPYD, MTHFR, SLCO1B1)
3311	Antiemetics-Dolasetron, Granisetron, Ondansetron (ABCB1, CYP2D6, CYP3A5)
PSYCHTROPIC DISORDERS (INCLUDING ADDICTION)	
3401	**Addiction to Alcohol, Cocaine, Heroin, Opioids, Tobacco** - Anti-addiction (Nicotine), Anti-addiction (Opiods), Buprenorphine, Bupropion, Ethanol, Disulfiram, Heroin, Levodopa, Methadone, Naloxone, Naltrexone, Nicotine, Suboxone (ABCB1, ANKK1, COMT, CYP2B6, CYP2C19, CYP2D6, CYP3A4, DBH, MTHFR, OPRM1)
3402	**ADD/ADHD** - Atomoxetine, Bupropion, Dextroamphetamine, Imipramine, Methylphenidate, Modafinil, Nortriptyline, (ANKK1, ABCB1, ADRA2A, CYP2B6, CYP2C19, CYP2D6, DRD1)
3403	**Alzheimer's Disease -** Donepezil, Galantamine, Olanzapine, Risperidone (ABCB1, ANKK1, CYP1A2, CYP2C9, CYP2D6, CYP3A5, HTR2A, MTHFR)
3404	**Anxiety, Insomnia, Severe Agitation** - Bupropion, Desvenlafaxine, Dexmedetomidine, Duloxetine, Escitalopram, Lorazepam, Midazolam, Oxazepam, Venlafaxine, Vilazodone (ABCB1, ADRA2A, ANKK1, COMT, CYP1A2, CYP2B6, CYP2C19, CYP2D6, CYP3A4, CYP3A5, GABRP, HTR2A, UGT1A1, UGT2B15)
3405	**Autism Spectrum Disorders** - Aripiprazole, Quetiapine, Risperidone (ABCB1, ANKK1, COMT, CYP2D6, CYP3A4, CYP3A5, HTR2A)
3406	**Bipolar Disorder -** Aripiprazole, Lamotrigine, Lithium, Olanzapine, Oxcarbazepine, Quetiapine, Valproic acid, Vilazodone (ABCB1, ABCG2, ANKK1, CYP1A2, CYP2C9, CYP2D6, CYP3A4, CYP3A5, COMT, DRD1, GABRA6, HTR2A, MTHFR, UGT1A1, UGT2B7)
3407	**Depressive Disorder & Major Depressive Disorder** - Amitriptyline, Antidepressants (gen), Antipsychotics (gen), Aripiprazole, Bupropion, Citalopram, Clomipramine, Desipramine, Desvenlafaxine, Diazepam, Doxepin, Duloxetine, Escitalopram, Fluoxetine, Fluvoxamine, Imipramine, Maprotiline, Milnacipran, Mirtazapine, Nortriptyline, Olanzapine, Opipramol, Paroxetine, Quetiapine, Sertraline, SSRIs (gen), Trimipramine, Venlafaxine, Vilazodone, Vortioxetine (ABCB1, ADRA2A, ANKK1, COMT, CYP1A2, CYP2B6, CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, DRD4, GABRP, GRIK4, HTR2A, HTR2C, MTHFR, UGT1A1)
3408	**Epilepsy** - Antiepileptics (gen), Brivaracetam, Carbamazepine, Clobazam, Lamotrigine, Mephenytoin, Oxcarbazepine, Phenobarbital, Phenytoin, Valproic acid (ABCB1, ABCG2, ANKK1, CYP1A2, CYP2C19, CYP2C9, CYP3A4, CYP3A5, GABRA6, UGT2B7)
3409	**Parkinson's Disease** - Entacapone (COMT)

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Test Menu: Pharmacogenomics

Test No.	Test Name
3410	**Schizophrenia** - Antipsychotics (gen), Aripiprazole, Chlorpromazine, Clozapine, Fluphenazine, Haloperidol, Iloperidone, Nemonapride, Olanzapine, Quetiapine, Risperidone, Thioridazine, Trifluoperazine, Zuclopenthixol (ABCB1, ANKK1, COMT, CYP1A2, CYP2C9, CYP2D6, CYP3A4, CYP3A5, DRD1, HTR2A, HTR2C, MTHFR)
3411	**Fibromyalgia** - Amitryptyline, Atomoxetine, Buproprion, Carbamazepine, Carisoprodol, Codeine, Desipramine, Desvenlafaxine, Dextromethorphan, Duloxetine, Escitalopram, Fluoxetine, Milnacipran, Naltrexone, Nortriptyline, Prednisone, Quetiapine, Tramadol, Venlafaxine (ABCB1, ADRA2A, ANKK1, COMT, CYP1A2, CYP2B6, CYP2C19, CYP2D6, CYP3A4, CYP3A5, DBH, GABRP, HTR2A, OPRM1, UGT1A1, UGT2B7)
3412	**Post-Traumatic Stress Disorder (PTSD)** - Aripiprazole, Amitriptyline, Bupropion, Buspirone, Desvenlafaxine, Dronabinol, Duloxetine, Fluoxetine, Fluvoxamine, Guanfacine, Hydroxyzine, Ketamine, Lamotrigine,Mirtazapine, Nefazodone, Paroxetine, Propranolol, Quetiapine, Risperidone, Sertraline, Trazodone, Valproic Acid, Venlafaxine, Vilazodone, Zolpidem (ABCB1, ABCG2, ANKK1, COMT, CYP1A2, CYP2B6, CYP2C19, CYP2C9, CYP2D6, CYP3A4, CYP3A5, DRD1, GABRP, HTR2A, UGT1A1, UGT2B7)
INFECTIOUS DISEASE	
3501	**HIV/AIDS** - Antivirals (HIV), Atazanavir, Dolutegravir, Efavirenz, Etravirine, Indinavir, Lamivudine, Lopinavir, Nelfinavir, Nevirapine, Ritonavir, Tenofovir, Zidovudine (ABCB1, ABCG2, APOE, CYP2B6, CYP2C19, CYP2D6, CYP3A4, CYP3A5, UGT1A1)
3502	**Antifungals and Antibiotics** - Daptomycin, Dicloxacillin, Erythromycin, Rifampicin, Sulfonamides (gen), Voriconazole (ABCB1, CYP2B6, CYP2C9, CYP2C19, CYP3A4, SLCO1B1)
3503	**Anti-Mycobacterials** - Anti-Mycobacterials (TB), Ethambutol, Isoniazid, Pyrazinamide, Rifampicin (ABCB1, CYP2B6, SLCO1B1)
IMMUNOLOGY / IMMUNE MODULATION	
3601	Transplantation-Busulfan, Cyclophosphamide, Cyclosporine, Everolimus, Methylprednisone, Prednisone/Prednisolone, Sirolimus, Tacrolimus (ABCB1, CYP2B6, CYP2C19, CYP2C9, CYP3A4, CYP3A5, MTHFR, SLCO1B1, TMPT)
3602	Rheumatoid Arthritis-Leflunomide, Methotrexate, Sulfasalazine (ABCB1, ABCG2, CYP1A2, MTHFR, SLCO1B1)
3603	Type-II Diabetes-Repaglinide, Sulfoureas (gen), Urea Derivatives (gen) (CYP2C8, CYP2C9, SLCO1B1)
3604	Gastritis and Colitis-Esomeprazole, Lansoprazole, Loperamide, Omeprazole, Pantoprazole, Rabeprazole, Tacrolimus (ABCB1, CYP2C19, CYP3A4, CYP3A5)
3605	Inflammation-Anti-inflammatories (gen), Celecoxib, Dexamethasone, Diclofenac, Flurbiprofen, Lornoxicam, Meloxicam, Prednisone/Prednisolone (ABCB1, CYP2C9, COMT, DBH, OPRM1)
3606	Systemic Lupus Erythematosus-Cyclophosphamide (CYP2B6, CYP2C19, CYP3A4, MTHFR, SLCO1B1, TMPT)
3607	Gout-Allopurinol (ABCG2)
3608	Antihistamines-Fexofenadine (ABCB1)
3609	Antiasthmatics-Zafirlukast (CYP2C9)
OTHER	
3701	Anaesthesiology-Nitrous Oxide (MTHFR)
3702	Beta Thalassemia-Deferasirox (CYP1A2, UGT1A1)
3703	Narcolepsy-Modafinil (ABCB1)
3704	Contraception-Oral Contraceptives (gen) (CYP2C9, F2, F5, MTHFR)
3705	Erectile Dysfunction-Sildenafil, Vardenafil (CYP3A4, CYP3A5)
3706	Bladder Control-Tolterodine (CYP2D6)
DERMATOLOGIC	
4048	Azathioprine
3837	Cyclosporine
3910	Methotrexate
3950	Prednisone/Prednisolone
3861	Erythromycin
3840	Daptomycin
3849	Dicloxacillin

Test Menu: Pharmacogenomics

Test No.	Test Name	
3957	Rifampicin	
3970	Sulfonamides	
3993	Voriconazole	
UROLOGIC		
3707	**Bladder Incontinence** - Darifenacin, Fesoterodine, Mirabegron, Tamsulosin, Tolterodine (CYP2D6, CYP3A4, CYP3A5)	
3708	**Bladder Cancer** – Cisplatin, Erdafitinib (ABCB1, CYP2C9, CYP3A4, MTHFR, TPMT)	
3709	**Prostate Cancer** – Abiraterone, Apalutamide, Cabazitaxel, Doctaxel, Enzalutamide, Flutamide, Goserelin, Leuprolide, Nilutamide, Prednisone/Prednisolone (ABCB1, CYP1A2, CYP2C19, CYP2D6, CYP3A4, CYP3A5, CYP2C8, SLCO1B1)	
INHERITED CARDIAC CONDITIONS / CARDIOVASCULAR DISEASE		
1267	Long QT Syndrome by Next Generation Sequencing (KCNQ1, KCNH2, SCN5A, KCNE1, KCNE2, KCNJ2, CACNA1C, CAV3, SCN4B, AKAP9, SNTA1, ANK2, CALM1, CALM2, KCNJ5)	
1263	**Thrombophilia Panel**	
	1264	Factor II (F2 20210 G>A)
	1265	Factor V Leiden (F5 1601 G>A)
	1266	MTHFR Mutations (MTHFR 677 C>T, MTHFR 1298 A>C)