

Drug-Gene Testing: BH MedGene Test

การตรวจพันธุกรรมดูการตอบสนองของยา: ชุดตรวจ BH MedGene Test

What is drug-gene testing?

- Drug-gene testing is a test that reports individual medication response and helps to adjust (or personalize) medication. Indeed, some medicine can be effective for one patient but not for another patient or, some patient may experience adverse reactions, due to the difference response to drugs.
- This drug-gene testing covers principal genes which are related to the medication metabolism including 9 genes which are *CYP2D6*, *CYP2C19*, *CYP2C9*, *VKORC1*, *CYP1A2*, *CYP3A4*, *CYP3A5*, *SLCO1B1* and, *OPRM1*.

What are the benefits of drug-gene testing?

- Helps to select and adjust drug dosage to suit each individual
- Improves medical treatment outcomes
- Reduces adverse drug reactions
- Increases treatment safety
- Reduces the time in drug trial-and-error

Who should undergo this test?

- People who are in drug treatment or plan to receive drug treatment.
- People who have chronic diseases and be treated by several medications such as elderly.
- People who wish to know their medication response in order to plan medication management.

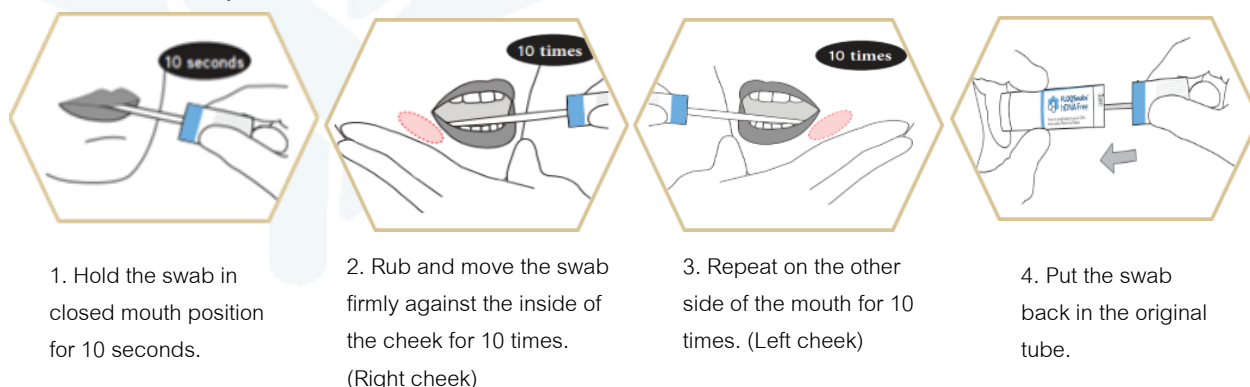
What are the limitations of this test?

- Unable to provide any information on a probable drug allergy expressed as skin rash (if you want to test gene for a specific drug allergy, you need to perform additional specific testing).
- This drug-gene testing does not cover all medications

How to use drug-gene testing and what are the restrictions?

Drug-gene testing is performed by a simple cheek swab. Before proceeding to the test, **avoid** eating and drinking (except water) and, avoid smoking, teeth brushing, and gum chewing at least one hour before collecting the sample.

Method to collect sample



Drug-Gene Testing: BH MedGene Test

การตรวจพันธุกรรมดูการตอบสนองของยา: ชุดตรวจ BH MedGene Test

Which drugs does this test cover?

This test covers more than 140 drugs, which including more than 20 drug groups, comprising e.g. antihistamines, pain reliever drugs, anti-inflammatory drugs, anticoagulants, diabetes medications, drugs in the treatment of gastric acid-related disorders, drugs used in nausea and vomiting, immunosuppressants, medications used in cardiovascular diseases, hypertension and lipid-lowering drugs etc.

The list of drugs is shown in the table below.

Allergy Loratadine	Cardiovascular/ Antihypertensive Allskiren Amlodarone Amlodipine Azilsartan Carvedilol Clonidine Diltiazem Dronedarone Flecainide Labetalol Lidocaine Losartan Metoprolol Nifedipine Propafenone Propranolol Ranolazine Timolol Verapamil	Neurology Cafergot Eletriptan Clobazam	Antidepressant/ psychiatry Amitriptyline Aripiprazole Atomoxetine Bupropion Citalopram Clomipramine Clonazepam Clozapine Doxepin Duloxetine Escitalopram Fluoxetine Fluvoxamine Haloperidol Imipramine Mirtazapine Nortriptyline Olanzapine Paroxetine Perphenazine Quetiapine Risperidone Sertraline Thioridazine Trazodone Venlafaxine Vortioxetine Ziprasidone
Analgesic Codeine Fentanyl Hydrocodone Methadone Morphine Oxycodone Tramadol	Dyslipidemic Atorvastatin Fluvastatin Pitavastatin Rosuvastatin Simvastatin	Anticonvulsant Carbamazepine Lacosamide Phenytoin Valproic	Sleep medicine Alprazolam Diazepam Midazolam Zolpidem
Anti-inflammatory Celecoxib Diclofenac Ibuprofen Meloxicam Piroxicam	Infectious disease Boceprevir Clarithromycin Darunavir Efavirenz Erythromycin Fosamprenavir Indinavir Nevirapine Quinine Terbinafine Voriconazole	Alzheimer's Donepezil Galantamine	Others Caffeine Carisoprodol Melatonin
Anticoagulant/ Antiplatelet Apixaban Clopidogrel Cilostazol Ticagrelor Warfarin	Gout/Rheumatology Colchicine Tofacitinib	Oncology Axitinib Bortezomib Brentuximab vedotin Cabazitaxel Dasatinib Docetaxel Enzalutamide Erlotinib Etoposide Exemestane Gefitinib Ibrutinib Imatinib Lapatinib Paclitaxel Pazopanib Sorafenib Sunitinib Tamoxifen Temsirrolimus Vemurafenib Vincristine	Men's health Finasteride Sildenafil Tadalafil Tamsulosin Vardenafil
Antidiabetic Chlorpropamide Glimepiride Glyburide	Urology Oxybutynin Tolterodine		
Antacid Dexlansoprazole Esomeprazole Lansoprazole Omeprazole Pantoprazole Rabeprazole			
Nausea vomiting medicine Aprepitant Metoclopramide Ondansetron			
Immunosuppressive Cyclosporine Everolimus Sirolimus Tacrolimus			

References

myDNA Life Australia Pty Ltd. *Patient Information Sheet: myDNA Medication Test*. Available from:

<https://www.mydna.life/wp-content/uploads/myDNA-Patient-Information-Sheet.pdf> [Accessed 21 April 2022].

Last reviewed in April 2022