



NEURO PGx

Genetic Analysis of Drug
Response

SYNLAB 
SOLUTIONS IN DIAGNOSTICS

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Why undergoing this examination?

Variation in the human genome is one of the factors responsible for modulating individual responses to medications. Pharmacogenetics studies how genetic differences between individuals influence their responses to drugs. The metabolism of a drug consists of several reactions that modify it and, in general, convert it into a more soluble molecule that can be more easily excreted. Various genes responsible for the expression of enzymes involved in drug metabolism pathways have genetic variants that cause changes in enzyme expression, selectivity, or activity, which result in diverse drug responses. Consequently, the assessment of genetic profiles based on the analysis of these variants has become essential to aid in understanding drug metabolism.

What is the exam?

The **NEURO PGx Gene Panel** pharmacogenetic panel evaluates variants in the genes responsible for the expression of the main enzymes involved in the metabolism of drugs most commonly used in the treatment of neurological and psychiatric conditions, such as depression, anxiety, schizophrenia, bipolar disorder, among others. The analysis provides relevant information on 81 of the most widely used drugs in medicine today, based on the study of 50 genetic variants, as described in scientific literature, present in 8 genes: *CYP1A2*, *CYP2C9*, *CYP2C19*, *CYP2D6*, *CYP3A4*, *CYP3A5*, *CYP2B6* e *ABCB1*.

For whom is it indicated?

- Patients with neurological or psychiatric conditions, such as depressive, psychotic, anxiolytic, or hypnotic disorders, who wish to personalize treatment based on their genetic profile;
- Patients on polypharmacy;
- Patients for whom pharmacological treatments have not produced the expected results and whose symptoms persist despite medication;
- Patients experiencing significant side effects from medications.

Technology

MassArray (iPlex)

Advantages

SYNLAB GROUP

Guaranteed by the experience of the absolute European leader in laboratory diagnostics.

COMPLETE

- A simple blood sample for analysis;
- The results will allow for the suggestion of individualized approaches, supporting prognosis to provide greater treatment efficacy and a significant reduction in adverse reactions.

Extra Information

DOCUMENTATION - Available on the SYNLAB Direct for clients

- Informed Consent;
- Clinical Questionnaire;
- Medical prescription.

PREPARATION

- Fasting is not necessary for the exam.



Delivery Time

22 business days



Sample Type

5 mL of whole blood in EDTA

Additional Information

Drug Classes Analyzed	
Central-acting adrenergic agonists	
Antidepressants	
NMDA receptor blockers	NA and DA reuptake inhibitors (NDRI)
5HT receptor reuptake inhibitor and antagonist (SARI)	Selective NA and 5HT reuptake inhibitors
Selective norepinephrine reuptake inhibitor	Selective serotonin reuptake inhibitors
Monoamine oxidase A inhibitors	Tricyclics and others
Nervous system	
Anxiolytics and antipsychotics antiepilépticos	Hypnotics and Sedatives Alzheimer's and Parkinson's
ADHD: amphetamines	