



## INTOLERANCE<sup>2</sup>

Intolerance to gluten and lactose

**SYNLAB**   
SOLUTIONS IN DIAGNOSTICS

[www.synlab-sd.com](http://www.synlab-sd.com)



## Why undergoing this examination?

CELIAC DISEASE is an intolerance to the ingestion of gluten, a group of proteins found in most cereals such as barley, rye, wheat, and malt, in genetically predisposed individuals. It is characterized by an inflammatory reaction in the mucosa of the small intestine, leading to atrophy of intestinal villi. This condition hinders the absorption of macro and micronutrients and is accompanied by a variety of clinical manifestations. PRIMARY LACTOSE INTOLERANCE, or acquired hypolactasia, is the most common cause of lactose intolerance in adults and has a genetic origin. Lactose is hydrolyzed in the body by an enzyme called lactase, resulting in glucose and galactose, which are absorbed at the intestinal level. When lactose is not hydrolyzed, it passes to the large intestine, causing symptoms such as abdominal pain and distension, bloating, gas, and diarrhea after the consumption of dairy products.

## What is the exam?

The **INTOLERANCE2** test allows identifying, in a single analysis, whether there is a genetic predisposition to celiac disease and/or lactose intolerance.

## For whom is it indicated?

- Patients with clinical suspicion of celiac disease and negative serological study before performing a biopsy.
- Patients with positive serology for celiac disease who reject biopsy.
- Patients with symptoms compatible with celiac disease and lactose intolerance.

## Technology

*Restriction Fragment Length Polymorphisms (RFLP) - PCR + Real-Time PCR*

## Advantages

### SYNLAB GROUP

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

### COMPLETE

A simple blood sample for the analysis of celiac disease and lactose intolerance.

## Extra Information

**DOCUMENTATION** - Available on the SYNLAB Direct for clients

- Informed consent;
- Clinical questionnaire.

### PREPARATION

- Requires 4 hours of fasting.



### Delivery Time

15 business days



### Sample Type

5 mL of whole blood in EDTA

## Additional Information

- Gluten intolerance is determined by studying the risk haplotypes HLA-DQ2 and HLA-DQ8. In 90% of cases, patients with celiac disease are HLA-DQ2 positive; the rest have allelic variants encoding HLA-DQ8 without HLA-DQ2 or a single HLA-DQ2 allele. In the absence of the studied haplotypes, the diagnosis of celiac disease becomes highly unlikely.
- Lactose intolerance is determined by analyzing the promoter region of the LTC gene located in the MCM6 gene. In the INTOLERANCE2 test, the variant -13910 (rs4988235) in the MCM6 gene is analyzed, responsible for 90% of cases of primary lactose intolerance in the Caucasian population.