Lactose Intolerance Quick Test for Endoscopy

Lactose Intolerance commonly results from a deficiency of Lactase enzyme in the intestinal mucosa. Lactase is required to digest dietary lactose in the intestinal lumen to glucose and galactose which can be absorbed into the blood stream.

Lactase activity begins to decrease after weaning and one-third of the adult population worldwide retains the ability to digest lactose. It is estimated that approximately 15-20% of Western and Northern Europeans, and 90% of Asian, African and Native Americans suffer from lactose intolerance. Often the ‘IBS-type symptoms’ remain undiagnosed, and thus lactose intolerance may not be treated for many years.

It is well-documented that a regular H₂ breath test has a very low sensitivity and that false negatives can occur in up to 20% patients with lactose malabsorption.¹ As a result, many patients are referred for endoscopy where direct biopsy tests offer an immediate improvement in performance with Sensitivity and Specificity of 95% and 100%.²

The Lactose Intolerance Quick Test from Biohit is unique and is performed in conjunction with gastroscopy. In just 20 minutes the test provides a reliable measurement of lactase from a biopsy specimen taken from the duodenal mucosa:

1. In the first step, lactose is added to the biopsy in a test plate. The lactase enzyme in the biopsy specimen breaks down the lactose substrate into monosaccharides - glucose and galactose.

2. In the second step, the amount of glucose is detected by using a chromogen solution and signal reaction solution, resulting in the formation of a coloured compound.

- Rule-out Lactose Intolerance in IBS & Functional dyspepsia
- Assess the degree of lactase deficiency in Coeliac Disease
- Identify Primary, Secondary, congenital and familial Lactase deficiency
- Sensitivity 95%, Specificity 100%
Biohit Lactose Intolerance Quick Test

Procedure

1. Place the biopsy into the well and add two drops of reagent 1 (substrate). Incubate at room temperature (20-25°C) for 15 minutes.

2. Add one drop of reagent 2 and two drops of reagent 3 and incubate at room temperature for a further 5 minutes.

3. Read the results against the colour chart provided.

Sensitivity 95%, Specificity 100%²

References
