

Avoiding Therapy Failure

By Using GenoType HelicoDR

GenoType HelicoDR – Molecular Genetic *Helicobacter pylori* Diagnostics

Based on **DNA•STRIP** technology, **GenoType HelicoDR** offers the simultaneous detection of *H. pylori* and its resistance to clarithromycin and/or fluoroquinolones from biopsies and culture material.



Your Benefits of Using GenoType HelicoDR

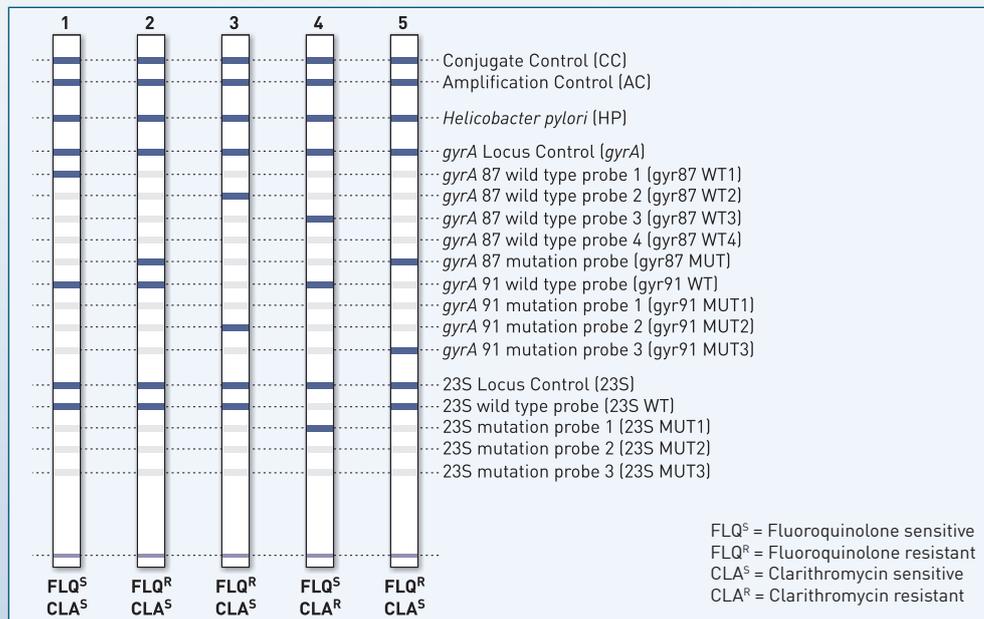
- **Efficient diagnostics:** The test system combines two diagnostic steps in one procedure. Firstly it allows the accurate detection of *H. pylori* from biopsies and culture material, and secondly it provides the analysis of the resistance to clarithromycin and/or fluoroquinolones. Thus, concerted therapy can be started immediately in order to minimize therapy failure.
- **Saving of time:** A valid result can be obtained directly from biopsies, within 5 hours. This is a valuable time saving when compared to conventional methods.
- **No limitation:** In contrast to conventional culture-based methods, transport and storage of the specimens are less critical, as DNA detection with **GenoType HelicoDR** does not require viable cells.
- **User-friendly:** The **DNA•STRIP** technology allows both manual and automated processing, and can therefore be easily implemented in the lab to suit your needs and infrastructure.
- **Cost-efficient:** Minimal equipment is required to run the assay, which makes implementation possible and cost effective, even for smaller laboratories.
- **CE-labeled:** No need for elaborate validation studies.

Facts

Almost half of the world's population are colonised with *Helicobacter (H.) pylori*, although many patients may be asymptomatic. The bacterium is regarded as a common cause of gastroduodenal disease. *H. pylori* is responsible for a large percentage of gastric ulcers, gastritis and gastric reflux. A chronic infection with *H. pylori* is also a risk factor for the development of gastric cancer and MALT (Mucosa Associated Lymphoid Tissue) lymphoma.

Eradication therapy is indicated in evidence of an *H. pylori* infection because of its association with malignant cancers. This normally consists of two different antibiotics and a proton pump inhibitor. Depending on the type of therapy applied, this involves the use of clarithromycin plus another antibiotic. Correctly applied therapy is successful in most cases. However, incorrect therapy results in an increase in the rate of resistance to clarithromycin. In such cases, reverting to alternative antibiotics is necessary, for e. g. drugs from the fluoroquinolone group. However, the first signs of resistance have been observed for these antibiotics as well. Therefore, *H. pylori* drug resistance should be determined at the latest, after the first unsuccessful therapy.

GenoType HelicoDR: Identification of *H. pylori* and its resistance to clarithromycin and fluoroquinolones



Examples for banding patterns and their evaluation with **GenoType HelicoDR**

Benefits of the GenoType HelicoDR:

GenoType HelicoDR enables you to identify

- fluoroquinolone resistance by detection of the most common mutations in the *gyrA* gene
- clarithromycin resistance by detection of the most common mutations in the 23S rRNA gene of *H. pylori* including differentiation of the four wild types. Thus, simultaneous detection of mixed infections or heterogeneous strains is possible.

Biopsy or primary culture samples are used as starting material for testing. Internal controls guarantee valid results.

Further information is available directly from Hain Lifescience or from your local distributor.

Hain Lifescience GmbH

Hardwiesenstrasse 1 | 72147 Nehren | Germany

Tel.: +49 (0) 74 73- 94 51- 0 | Fax: +49 (0) 74 73- 94 51- 31

E-Mail: info@hain-lifescience.de | www.hain-lifescience.de

