



Reliable Shiga Toxin Detection
for Early EHEC Diagnosis!

GenoType EHEC: Your Molecular Genetic Test System for the Detection of the Shiga Toxin Genes *stx1* and *stx2*, the Intimin Gene (*eae*) and the *ipaH* Gene, from Cultures.



Your Benefits of Using GenoType EHEC

- **Clear result:** **GenoType EHEC** enables the reliable differentiation of *Escherichia coli* and *Shigella ssp.* as well as the simultaneous detection of the important Shiga toxin genes. Additionally, the intimin gene (*eae*) is detected. The unambiguous result is the basis for efficient EHEC diagnostics.
- **Rapid result:** Working from cultured material, the result is obtained within one working day, thus it enables rapid detection of EHEC.
- **User-friendly:** The approved **DNA•STRIP** technology is the basis for easy processing and optimal integration of the **GenoType EHEC** in the routine.
- **Cost-effective:** Minimal equipment is needed which allows even smaller laboratories a cost-effective implementation.
- **CE-labeled:** No need for elaborate validation studies.

Facts

Escherichia coli (*E. coli*) is a bacterium commonly found in the gut of humans and warm-blooded animals. Most strains of *E. coli* are harmless. However, some strains like enterohaemorrhagic *E. coli* (EHEC), can cause severe foodborne disease.

Clinical symptoms of EHEC infections range from mild diarrhoea up to post-infectious syndromes such as hemolytic uremic syndrome (HUS). The latter may lead to life-threatening complications particularly in infants and the elderly. Due to the high virulence of EHEC (infection dose approx. 100 pathogens) an early examination of diarrhoea is mandatory in the case of hospitalized children, outbreaks in nursing homes and other shared facilities. Thus, transmission can be eliminated and severe progression can be antagonised.

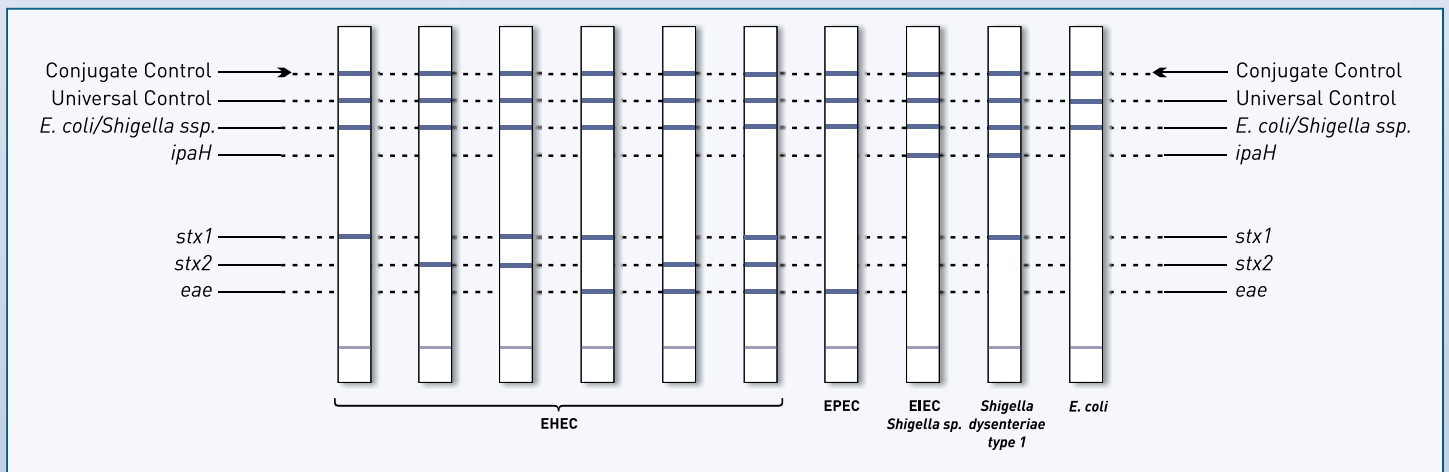
In cultivation, EHEC do not differ phenotypically from apathogenic *E. coli*, thus making their microbiological identification extremely difficult. Therefore, the foremost diagnostic criterion for detecting an EHEC infection is identifying the Shiga toxin, produced by the bacteria. Thus, the aim of the laboratory diagnostics is the isolation of the pathogen and the detection of the toxin genes. This identification however, requires the use of molecular biological diagnostic procedures.

Rapid and Reliable EHEC Diagnostics in One Single Procedure!

By using cultured material, the **GenoType EHEC** enables to do the following, within one day:

- the differentiation of *E. coli* and *Shigella* ssp.
- the detection of EHEC by analysis and differentiation of the Shiga toxin genes *stx1* and *stx2* as well as the intimin gene (*eae*)
- the distinction between EHEC on the one hand, and shigellas and enteroinvasive *E. coli* (EIEC) on the other hand by the detection of the shigella specific *ipaH* gene

In contrast to conventional detection methods this information can be obtained fast and reliable in one single procedure.



Examples of banding patterns and their evaluation with **GenoType EHEC**

GenoType EHEC – Accurate and Reliable Results for your EHEC Diagnostics!

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

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