Encode E. coli (EPEC,VTEC and EHEC) ID Kit

Item code: EIL-FS-EC
Technology: PCR / Real Time PCR/ PCR
Manufacturer: ENCODE
Size: EIL-FS-EC-10 Rxns
EIL-FS-EC-25 Rxns
EIL-FS-EC-50 Rxns
EIL-FS-EC-100 Rxns

BACKGROUND:

The gram-negative bacterium *Escherichia coli* is the most numerous aerobic commensal inhabitants of the large intestine. Certain strains of *E.coli* cause diarrhoea, Urinary tract infection, Enteric infection, Invasive infection and so on. *Enteric E. coli* that cause disease can present different virulence determinants, corresponding to different pathotypes. These include the *verocytotoxigenic E. coli* (VTEC), comprising the *enterohaemorrhagic E. coli* (EHEC), and the *enteropathogenic E. coli* (EPEC). VTEC are characterized by the production of verocytoxins (Vtx), encoded by vtx1 or vtx2 genes, (also known as Shiga-like toxins - Stx - corresponding to stx1 and stx2 genes). EHEC are a subset of VTEC, that in addition to the Vtx-encoding genes carries the attaching and effacing gene eae (intimin-coding) and have the ability to cause attaching and effacing lesions in hosts. EPEC carry the eae gene but do not produce Vtx. The E. coli strains, specially EHEC (including the O157:H7 and O157:H- serotypes), are recognized as major pathogens of foodborne disease in humans. They are transmitted to humans primarily through consumption of contaminated foods, such as raw or undercooked ground meat products, raw milk, and contaminated raw vegetables and sprouts. The need for rapid, accurate and sensitive methods for the detection of these E. coli strains is a major food safety issue. In order to quickly detect and identify E. coli, DNA amplification by polymerase chain reaction (PCR), in particular, using real time PCR and specific fluorescent probes, is a powerful and reliable tool, providing results much faster and allowing more efficient control procedures.

PRODUCT DESCRIPTION:

REAL TIME DETECTION KIT *E.coli* uses real-time PCR technology for the detection of *E.coli (EPEC,VTEC and EHEC)* in a simple, efficient, reliable, and rapid procedure. This method is based on 5’ nuclease real time PCR reactions to amplify a unique and desirable genomic sequence in the target microorganism. This carefully designed primers and probe ensure highest sensitivity, accuracy and specificity.