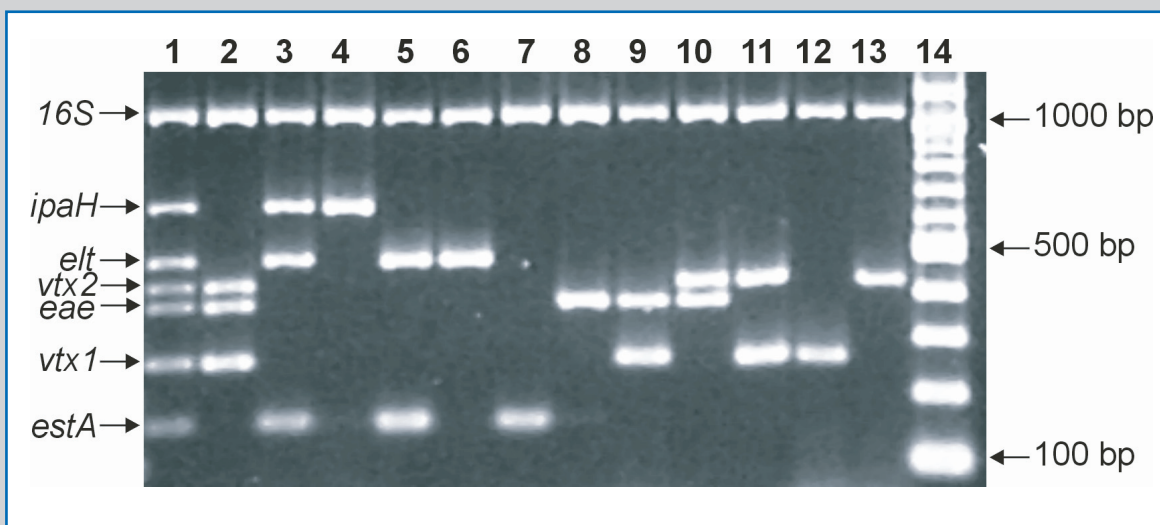




- *Screening for diarrhoeagenic E. coli*
- *Detection of virulence genes*
- *Multiplex PCR - 7 results in one step*



Analysis of 13 different templates. Lane 1 to 13 contains a variety of different templates and lane 14 contains a 100 bp DNA marker

Description

The DEC Primer Mix is for detection of virulence genes of diarrhoeagenic *Escherichia coli* (DEC) from isolated colonies.

The DEC Primer Mix contains a mixture of 8 different primer pairs directed towards 7 virulence genes and a 16S rDNA internal control, respectively.

Screening for DEC by multiplex PCR using DEC Primer Mix allows characterization of DEC based on virulence genes and not only on the serotype, which traditionally is used. By detecting DEC only by serotyping (e.g. by performing only O157 screening) pathogenic *E. coli* isolates might be overseen.

The method will be suitable for all Microbiological Laboratories that detect *E. coli*.

Background

Today *E. coli* O157 and other types of verocytotoxin-producing *E. coli* (VTEC) are considered as some of the most important human pathogens in developed countries.

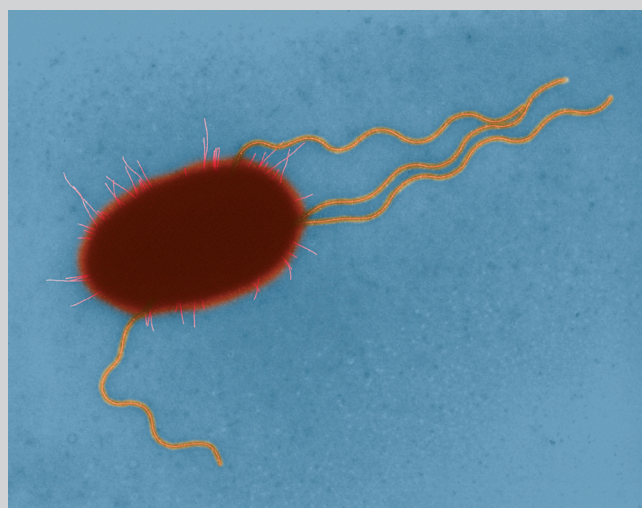
Among the different groups of intestinal pathogenic strains, the most important groups of DEC are:

- Verocytotoxin producing *E. coli* (VTEC)
- Attaching and effacing *E. coli* (A/EEC) including enteropathogenic *E. coli* (EPEC)
- Enterotoxigenic *E. coli* (ETEC)
- Enteroinvasive *E. coli* (EIEC)

The DEC Primer Mix will allow determination of the virulence genes for all of these groups.

Gene	<i>E. coli</i> group
16S rDNA ^{a)}	-
<i>ipaH</i>	EIEC
<i>eltA</i>	ETEC
<i>vtx2</i>	VTEC
<i>eae</i>	EPEC & A/EEC
<i>vtx1</i>	VTEC
<i>estA</i> -porcine	ETEC
<i>estA</i> -human	ETEC

^{a)} Amplifies a fragment from most Gram-negative bacteria



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Application

The DEC Primer Mix is intended for multiplex PCR applied directly on boiled *E. coli* colonies from a selective medium. The DEC Primer Mix is ready to use and contains 250 µL, enough for 100 tests. Mastermix, Taq polymerase (Invitrogen™) and DNA marker must be added by the customer according to the instruction for use. The PCR reaction has been optimized to the following PCR machines: MJ Research Tetrad 2, Applied Biosystems 9700 and 9600.

When *E. coli* are tested positive in the PCR the strain should be recovered from the plate and serotyped by traditional methods.

Storage and shelf life

The DEC Primer Mix is stable for 1 year when stored at -20°C. Expiry date is printed on the label.

Available product

Article No. 62870
DEC Primer Mix 250 µL

Information and ordering

Statens Serum Institut
SSI Diagnostica
2 Herredsvejen
3400 Hillerød
Denmark
Tel.: +45 4829 9178
Fax: +45 4829 9179
microbiology@ssi.dk
www.ssi.dk