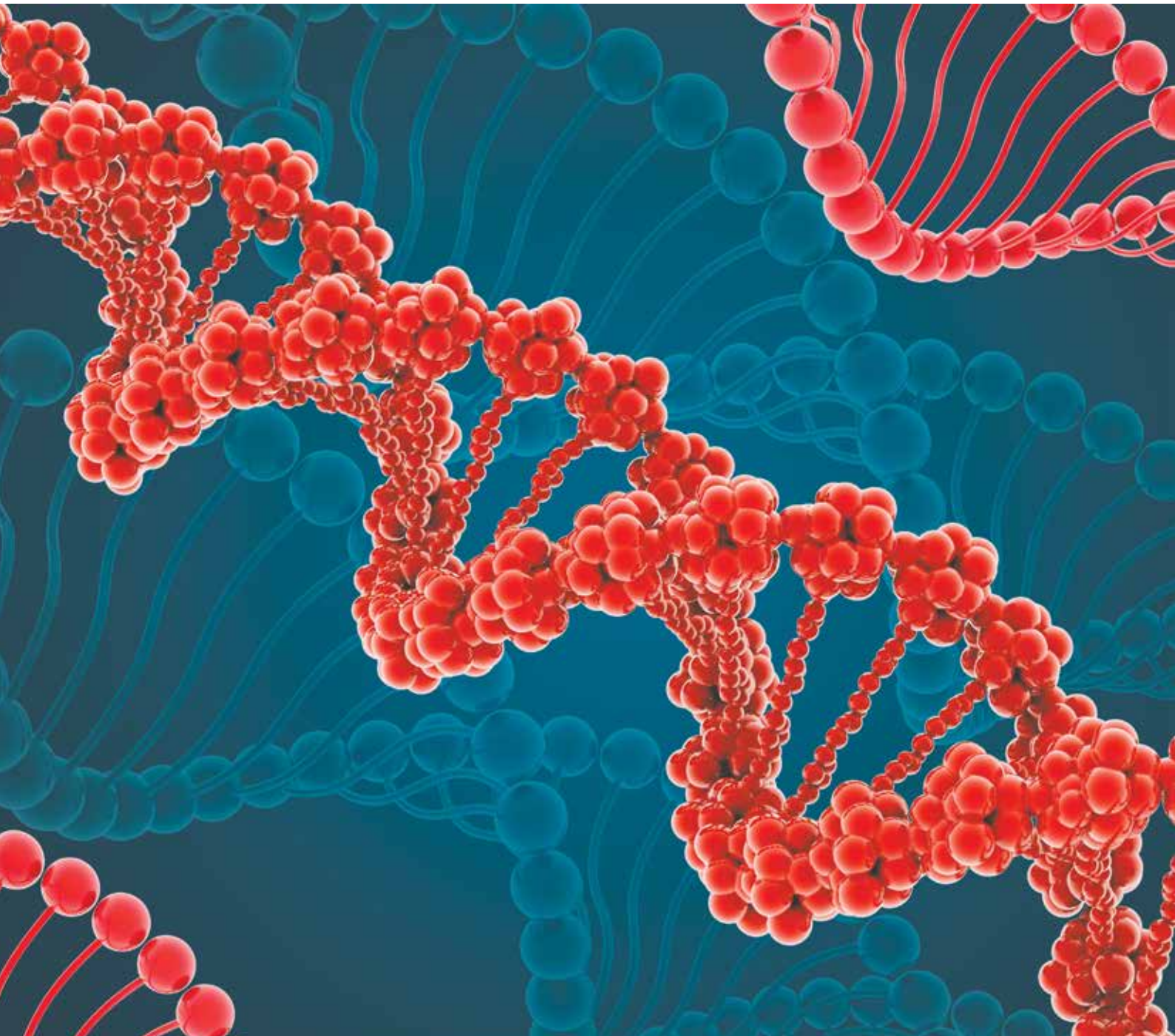


# E. COLI DEC PCR KIT

STATENS  
SERUM  
INSTITUT



SSI Diagnostica  
2 Herredsvejen  
DK-3400 Hillerød  
Denmark

T +45 4829 9178  
F +45 4829 9179  
@ [ssidiagnostica@ssi.dk](mailto:ssidiagnostica@ssi.dk)  
w [ssi.dk/ssidiagnostica](http://ssi.dk/ssidiagnostica)

# E. COLI DEC PCR KIT

## Description

The DEC PCR Kit is for detection of virulence genes of diarrhoeagenic *Escherichia coli* (DEC) from isolated colonies<sup>1</sup>.

The DEC PCR Kit includes a primer mix containing 8 primer pairs directed towards 7 virulence genes and 16S rDNA (positive internal control).

Traditionally, characterisation of DEC has been based on results from serotyping. Screening for DEC by our multiplex PCR allows characterization of DEC based on virulence genes and not only on the serotype. This way, it is avoided that pathogenic *E. coli* isolates are overlooked. The PCR method is 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 (VTEC)
- Attaching and effacing *E. coli* (A/EEC) including enteropathogenic *E. coli* (EPEC)
- Enterotoxigenic *E. coli* (ETEC)
- Enteroinvasive *E. coli* (EIEC)

The DEC PCR Kit allows determination of the virulence genes for all of these groups.

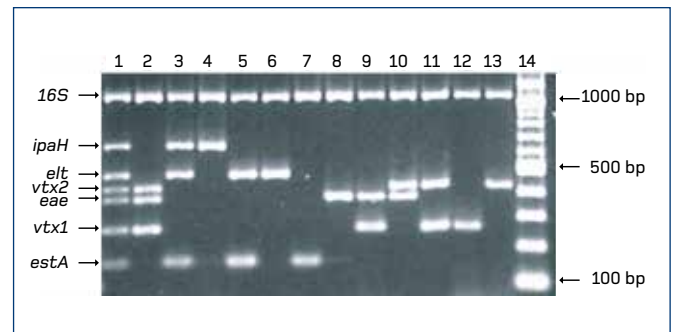
Gene	<i>E. coli</i> group
16S rDNA <sup>a)</sup>	-
<i>ipaH</i>	EIEC
<i>eltA</i>	ETEC
<i>vtx2</i>	VTEC
<i>eae</i>	EPEC & A/EEC
<i>vtx1</i>	VTEC
<i>estA</i> -porcine	ETEC
<i>estA</i> -human	ETEC

<sup>a)</sup> Amplifies a fragment from most Gram-negative bacteria

## Application

The DEC PCR Kit includes DEC primer mix, two PCR positive DNA controls, PCR ReadyMix (including loading buffer), TE-buffer and 10% Chelex-100. The kit includes reagents enough to perform 100 PCR tests. It is also possible to purchase the primer mix and positive DNA controls separately (DEC Primer Mix, art. no. 62870).

The DNA template is prepared by boiling and diluting *E. coli* colonies from a selective medium. When an *E. coli* is tested positive in the PCR, the strain should be recovered from the plate and serotyped by traditional methods.



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

## Storage and Shelf Life

The DEC PCR Kit is stable for 1½ years (for storage temperature of the different reagents read the instruction for use). The expiry dates are printed on the individual reagents.

## Product Assortment

Article no. 73410, DEC PCR Kit

## Reference

1. S. Persson, K.E.P. Olsen, F. Scheutz, K.A. Krogfelt and P. Gerner-Smidt. A method for fast and simple detection of major diarrhoeagenic *Escherichia coli* in the routine diagnostic laboratory. *Clin Microbiol Infect* 2007; 13: 516-524

## Information and Ordering

SSI Diagnostica  
2 Herredsvejen  
3400 Hillerød  
Denmark  
T +45 4829 9178  
F +45 4829 9179  
@ ssidiagnostica@ssi.dk  
w ssi.dk/ssidiagnostica  
shop.ssi.dk

