

E. coli O157 (1.B.250B): sc-71004

BACKGROUND

Escherichia coli is a member of the family *Enterobacteriaceae*, and it is one of the main species of bacteria living in the lower intestines of mammals. *E. coli* is a Gram-negative, rod-shaped, aerobic microbe that is commonly used as a model organism for bacteria in general. The K99 pilus antigen plays a large role in *E. coli* attachment and colonization in the small intestine. *E. coli* is the cause of a wide variety of infections in mammals including urinary tract infections, meningitis, peritonitis, mastitis, septicemia and Gram-negative pneumonia. Because of the important role of *E. coli* in modern biological engineering, researchers commonly take advantage of this bacteria. *E. coli* can be easily altered to synthesize DNA or proteins, which can then be produced in large quantities using industrial fermentation processes. The *E. coli* strain O157 is one of hundreds of strains of the bacterium *E. coli* that causes illness in humans. O157 produces Shiga-like toxins that cause gastrointestinal illnesses. The *E. coli* K1 strain causes neonatal meningitis by penetrating into the central nervous system.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

E. coli O157 (1.B.250B) is a mouse monoclonal antibody raised against *E. coli* whole cells.

PRODUCT

Each vial contains 100 μ g IgG $_3$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

E. coli O157 (1.B.250B) is recommended for detection of serotype O157 of *E. coli* origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.