SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-E.coli O157:H7 antibody

Catalog Number: SL1563R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	E.coli O157:H7
Immunogen:	Ecoli O157;H7 protein
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	ELISA=1:5000-10000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted: Escherichia Coli)
Background:	This antibody reacts with Escherichia coli O157 (E.coli O157), Escherichia coli is a gram negative bacillus that belongs to a larger group of Enterobacteriae - bacteria that inhabit the gastrointestinal tract. Although usually a harmless resident of the gut, some strains have the potential to cause serious problems, especially where there is an immature immune system or immunosuppression, or where the subtype of organism has acquired the ability to produce pathogenic toxins. **Function:** Escherichia coli are Gram negative bacterium that are commonly found in the lower intestine of warm-blooded organisms (endotherms). Their serological types are determined in combination with somatic antigens (O group: O1-O173) and flagella antigens (H type: H1-H56). The E. coli that cause intestinal infectious diseases including diarrhea, acute gastritis or colitis are referred to as pathogenic E. coli, which are classified into the following 4 groups according to differences in the mode of pathogenicity; enteropathogenic E. coli (EPEC), enteroinvasive E. coli (EIEC), enterotoxigenic E. coli (ETEC) and enterohemorrhagic E. coli (EHEC). Although the identification of pathogenic E. coli requires verification of their

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	pathogenicity, pathogenic E. coli often have specific serotypes; therefore, typing of the serogroup and serotype is necessary in screening pathogenic E. coli. **SWISS:** N/A **Gene ID:** N/A EHEC-Enterohemorrhagic Escherichia coli O157:H7 (E.coli O157:H7) is a type of enterotoxigenic Escherichia coli-enteropathogenic Escherichia coli that is similar to the toxin produced by Shigella dysenteriae type I. EHEC mainly invades the colon, and in the intestine it can cause necrosis of intestinal mucosa cells, causing tissue lesions - forming intestinal wall ulcers; EHEC-Escherichia coli O157:H7 is the most virulent type, and this strain has varying degrees of tolerance and resistance to many antibiotics. In severe cases, it can lead to symptoms of hemolytic uremic syndrome, If not treated promptly, it can cause death. EHECcauses invasive intestinal lesions，mainly in the colon site。Research suggests that the Shiga-like toxin produced by ETEC binds to receptors on microvascular endothelial cells of intestinal wall tissue, causing vascular damage, while also stimulating local cell factor TNF, LPS, andIL1βincrease。These cell factors further enhance the sensitivity of receptors to the toxin, promoting further aggravation of vascular damage. Whether this toxin acts on endothelial cells of other organs, stimulates the production of cell factors, and causes local damage-leading to vascular bleeding phenomena remains to be further studied.

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