

Recombinant Salmonella Typhi HlyE Protein, His-tagged

Cat. No. SAL-573 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Salmonella typhi Hemolysin E protein is a recombinant antigen manufactured in E. coli cells for immunoassay development and other applications.

Tag

His

Background

Salmonella enterica colonizes and infects a wide range of different organisms and causes a broad spectrum of diseases, such as gastroenteritis and bacteremia, as well as life-threatening conditions, such as typhoid fever. Typhoid fever is a fatal illness caused by Salmonella enterica serovar Typhi (S. typhi) with an estimated 22 million cases and 200,000 related deaths occurring worldwide each year.

The S. typhi hlyE gene (also called clyA or sheA) encodes a pore-forming protein with hemolytic and cytotoxic activities that are absent in other Salmonella enterica serovars such as Salmonella typhimurium (Oscarsson et al., 1999). HlyE is an essential virulence factor of Salmonella, Escherichia coli and other enteric bacteria and is required for survival of the bacteria within the host macrophage (Libby et al., 1994). HlyE acts by forming large, stable pores in target membranes upon contact with mammalian cells (del Castillo et al., 1997; vonRhein et al., 2006). It causes haemolysis of erythrocytes and has apoptogenic effects on human and murine monocytes/macrophages. Serological studies have shown that S. typhi and S. paratyphi A strains produce substantial amounts of HlyE during human infection (Oscarsson et al., 1999; Oscarsson et al., 2002).

Typhi HlyE has been found in the plasma of patients with S. typhi bacteremia and recent studies have identified that HlyE is an antigen that is capable of discriminating between typhoid patients and control subjects. The reactivity of different Ig isotypes

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(IgG, IgA and IgM) against recombinant HlyE has been shown and soluble recombinant HlyE is antigenic in both denatured and native forms. It can therefore be used as a diagnostic antigen in an ELISA format (Ong et al., 1994).

Purity

Greater than 95% purity

Formulation

20mM Na-carbonate Buffer, pH10

Applications

Suitable for use in LFIA, ELISA and Western Blot

Notes

This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Type

Recombinant

ClassID 1

Infectious Disease

GENE INFORMATION**Synonyms**

Salmonella Typhi Hemolysin E (HlyE)

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