



Anti-Diphtheria Toxin polyclonal antibody (DPBT-66835GD)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Goat Anti Diphtheria Toxin
Immunogen	Purified diphtheria toxoid
Isotype	IgG
Source/Host	Goat
Species Reactivity	C. diphtheriae
Conjugate	Unconjugated
Applications	ELISA
Format	Purified IgG - liquid
Concentration	4 mg/ml
Size	1 ml
Buffer	Phosphate buffered saline
Preservative	0.1% Sodium Azide
Storage	Store at +4 °C or at -20 °C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

BACKGROUND

Introduction

Diphtheria is a bacterial infectious disease which appears predominantly during the childhood. The disease leads particularly to an inflammation of the pharynx, larynx and nasal mucosa. Additionally, bacterial toxins cause via long-distance effect damages of the heart, circulation and CNS. Only the toxigenic strains are pathogenic. The etiologic agent is the *Corynebacterium diphtheriae*. These gram-positive bacteria prefer a microaerophil to anaerobe environment. Its pathogenicity is based on the secretion of an exotoxin that is circulating in the blood and effecting the heart muscle, kidneys and CNS. The Diphtheria toxoid will be produced by lysogenic strains. Depending on the stage of disease, the three types slight, middle and serious can be distinguished. The natural source of infection is the sick individual, whereas a carrier not absolutely shows symptoms. The infection is spread both through the aerial-droplet route and rarely by milk or smear infection. The appearance of Diphtheria shows a seasonal prevalence with the greatest incidence in winter. Especially non-vaccinated children will be infected. The incubation time is depending on the number of invasive germs. The place of infection is the mucosa of the respiratory tract, where an acute local infection is developing. The secreted toxin leads to a superficial inflammation of the mucosa associated with the formation of a brown film (pseudo-membrane) upon it, consisting of bacteria, necrotic epithelial cells, fibrin, red and white cells. From this local inflammation, the toxin reaches other organs by using the blood and lymphatic circulation. Here it may cause severe damages. The grade of disease depends on the immunostate of the child. Usually, a limited Diphtheria arises, whereas in case of an immunosuppression, a severe Diphtheria is observed. As a result of this disease course, patients may die. In most cases children will be vaccinated (e.g. DTP = Diphtheria-Tetanus-Pertussis) after the third month of life. The state of immunity can be monitored by determining the antitoxin IgG.

Keywords

Corynebacterium diphtheriae toxoid; Diphtheria Toxin; tox; Diphtheria Toxoid