ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Diphtheria toxin cross-reactive material 197 (CRM197**) and Antibodies**

Cat. CRM1971-S	Rabbit Anti-Diphtheria toxin cross-reactive material 197 protein antiserum #1	**Size**: 100 ul
Cat. CRM1972-S	Goat Anti-Diphtheria toxin cross-reactive material 197 protein antiserum #2	**Size**: 100 ul

Diphtheria is a localized infection of mucous membranes or skin caused by toxigenic strains of CORYNEBACTERIUM DIPHTHERIAE. It is characterized by the presence of a pseudomembrane at the site of infection. DIPHTHERIA TOXIN, produced by C. diphtheriae, can cause myocarditis, polyneuritis, and other systemic toxic effects. Diphtheria toxin is an exotoxin secreted by Corynebacterium diphtheriae, the pathogen bacterium that causes diphtheria. Diphtheria toxin is a single polypeptide chain of 535 amino acids (~63 kda) consisting of two subunits linked by disulfide bridges. An ADP-ribosylating polypeptide produced by CORYNEBACTERIUM DIPHTHERIAE that causes the signs and symptoms of DIPHTHERIA. It can be broken into two unequal domains: the smaller (24 kda), catalytic A domain is the lethal moiety and contains MONO(ADP-RIBOSE) TRANSFERASES which transfers ADP RIBOSE to PEPTIDE ELONGATION FACTOR 2 thereby inhibiting protein synthesis; and the larger B domain (39 kda) that is needed for entry into cells. Diphtheria toxin is extraordinarily potent. A massive release of toxin into the body will likely cause lethal necrosis of the heart and liver. Diphtheria Toxoid is formaldehyde-inactivated toxin of Corynebacterium diphtheriae. It is generally used in mixtures with TETANUS TOXOID and PERTUSSIS VACCINE; (DTP); or with tetanus toxoid alone (DT for pediatric use and Td, which contains 5- to 10-fold less diphtheria toxoid, for other use). Mutant forms of diphtheria toxin (DT), cross-reactive material 197 (**CRM197**) is a non-toxic DT mutant containing a lesion in the A chain blocking ADP-ribosylation. CRM has the advantage of being a well-defined protein in contrast to formaldehyde treated toxin (toxoid) which is non-specifically cross linked and subject to rearrangement. CRM functions as a carrier for polysaccharides and haptens making them immunogenic. Toxoid refers to the inactivated version of the active toxin. It is typically produced by formaldehyde inactivation of the active protein.

Source of Antigen and Antibodies

Antigen	purified CRM197 protein (#CRm197-N-100)
Ab Host/type	Rabbit Polyclonal IgG, (Cat # **CRM1971-S**) Goat, Polyclonal IgG, (Cat # **CRM1972-S**)
2-Ab	**Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)**
-ve	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage

100 ul solution lyophilized powder
Buffer: PBS pH 7.4 and 0.05% azide
Reconstitute powder in 100 ul water
Stability: 6-12 months at –20oC or below.

Suggested Use:

ELISA: use at 1:1000-1:3000
Western Blot: 1:500-1:2000
If: 1:200-1:1000

General References: Honjo J (1968) JBC 243, 3553; Gill Dm (1969) J. Exp. Med. 129, 1-21; Bowman JB (1970) J. Exp. Med. 132, 1138; Uchida T (1972) Science 175, 901-903; Holmes RK (2000) J. Infect. Dis. 181, S156; Robbins JB (1990) J. Infect. dis. 161, 821-832**;**

This product is for in vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
940-100-DHG	Human Anti-Diphtheria Toxin/Toxoid IgG ELISA kit, 96 tests, Quantitative
940-110-DHM	Human Anti-Diphtheria Toxin/Toxoid IgM ELISA kit, 96 tests, Quantitative
940-120-DHM	cat# change to :940-110-DHM; Human Anti-Diphtheria Toxin/Toxoid IgM ELISA kit
DTOX15-N-500	Purified Diphtheria Toxoid protein (antigen grade)
CRM197-N-100	Purified CRM197 (Diphtheria Toxin mutant) protein (antigen grade)
940-140-DGG	Guinea Pig Anti-Diphtheria Toxin/Toxoid IgG ELISA kit, 2x96 tests, Quantitative
940-145-DGM	Guinea Pig Anti-Diphtheria Toxin/Toxoid IgM ELISA kit, 2x96 tests, Quantitative
940-200-DHG	Human Anti-CRM197 (Diphtheria Toxin mutant) IgG ELISA kit, 5x96 tests, Quantitative
940-210-DHM	Human Anti-CRM197 (Diphtheria Toxin mutant) IgM ELISA kit, 5x96 tests, Quantitative
940-220-DMG	Mouse Anti-CRM197 (Diphtheria Toxin mutant) IgG ELISA kit, 2x96 tests, Quantitative
940-225-DMM	Mouse Anti-CRM197 (Diphtheria Toxin mutant)IgM ELISA kit, 2x96 tests, Quantitative
DTOX13-M	Monoclonal Anti-Diphtheria Toxin/Anatoxin IgG #1, unlabeled
DTOX14-M	Monoclonal Anti-Diphtheria Toxin/Anatoxin IgG #2, unlabeled
DTOX15-M	Monoclonal Anti-Diphtheria Toxin subunit A IgG, unlabeled
940-230-DRG	Rabbit Anti-CRM197 (Diphtheria Toxin mutant) IgG ELISA kit, 2x96 tests, Quantitative
940-235-DRM	Rabbit Anti-CRM197 (Diphtheria Toxin mutant) IgM ELISA kit, 2x96 tests, Quantitative
DTOX11-S	Anti-Diphtheria Toxoid/Toxin IgG, unlabeled
DTOX12-S	Anti-Diphtheria Toxoid/Toxin IgG, unlabeled
DTOX12-B	Anti-Diphtheria Toxoid/Toxin IgG-Biotin conjugate
DTOX12-F	Anti-Diphtheria Toxoid/Toxin IgG-FITC conjugate
DTOX12-HRP	Anti-Diphtheria Toxoid/Toxin IgG-HRP conjugate
DTOX16-S	Anti-Diphtheria Toxoid/Toxin antiserum

CRM1971-S-Rabbit-Anti-CRM197-antiserum
161208SV

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