

Anti-Corynebacterium diphtheriae toxoid (Diphtheria toxoid)
Mouse monoclonal antibody

Subclass: IgG1/k

PRODUCT NO.

HYB 123-09

Clone: 11D9

PRESENTATION

Preparation: Protein-A/G purified

Content: Available in 200 µL and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details.

Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide

Storage: 4-8°C without exposure to light. No precautions necessary during handling.

ANTIGEN

Corynebacterium diphtheriae is a Gram-positive, non-motile bacterium that can cause serious illness in unvaccinated humans. *C. diphtheriae* infects the epithelial cells of the upper respiratory tract from where they secrete a potent toxin that is absorbed and disseminated through lymph channels and blood to the susceptible tissues of the body. The toxin is a single protein chain of 62 kDa which is "nicked" at proteolytic processing sites to produce an A chain of 21 kDa and a B chain of 40 kDa, held together by a disulfide bridge. The A-chain carries the ADP-ribosylation enzymatic activity responsible for the toxic action (1).

IMMUNOGEN

Diphtheria toxoid prepared from toxin purified from *C. diphtheriae* subsp. *intermedius* Park-Williams no. 8 by formaldehyde inactivation (2), and adsorbed to aluminum hydroxide gel

SPECIFICITY

HYB 123-09 reacts with diphtheria toxoid.

EPI TOPE SPECIFICITY

Not determined

REACTIVITY

HYB 123-09 reacts in ELISA wells coated with diphtheria toxoid. When used in Western blotting HYB 123-09 detects a band at approximately 63 kDa corresponding to the toxin proenzyme.

An antibody pair consisting of HYB 123-09 and HYB 123-05 can be used in a sandwich ELISA when using HYB 123-09 as a coat and biotinylated HYB 123-05 a detection antibody.

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

X63-Ag8.653

IMMUNIZATION

Female CF1xBalb/c F1 hybrid mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	References
ELISA	Yes	
Immunoblotting	Yes	
Immunohistochemistry	Not determined	

REFERENCES

1. Pappenheimer AM Jr (1977) Diphtheria toxin. Ann Rev Biochem 46:69-94.
2. World Health Organization (1977) Manual for the production and control of vaccines. Diphtheria toxoid. BLG/UNDP/77.1. World Health Organization, Geneva.

CONDITIONS

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