SANTA CRUZ BIOTECHNOLOGY, INC.

Ricin B (RB257): sc-52192

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Ricin, a type II ribosomal inactivating protein, inhibits protein biosynthesis by its RNA N-glycosidase activity. Ricin toxin, derived from the castor bean *Ricinus communis,* is a prototypic A-B toxin in which the B chain binds to the target cell, and the A chain (RTA) mediates the toxic activity. Ricin B chain (RTB) is a lectin that is responsible for cell agglutination and binds to β-D-galactopyranoside moieties found at the cell surface (e.g., on glycoproteins), allowing the A chain to enter the cell. In turn, the A chain functions enzymatically as an RNA N-glycosidase that depurinates adenine 4324 in the 28S rRNA of the 60S ribosomal subunit. The crystal structure of ricin has been defined.

REFERENCES

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3. Candy, L., Peumans, W.J., Menu-Bouaouiche, L., Astoul, C.H., Van Damme, J., Van Damme, E.J., Erard, M. and Rouge, P. 2001. The Gal/GalNAc-specific lectin from the plant pathogenic basidiomycete *Rhizoctonia solani* is a member of the Ricin B family. iochem. Biophys. Res. Commun. 282: 655-661.
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5. Doan, L.G. 2004. Ricin: mechanism of toxicity, clinical manifestations, and vaccine development. A review. J. Toxicol. Clin. Toxicol. 42: 201-208.
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SOURCE

Ricin B (RB257) is a mouse monoclonal antibody raised against agglutinin of *Ricinus communis* origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Ricin B (RB257) is recommended for detection of RAC120 and the B-chain of RCA60 of *Ricinus communis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecualr Weight of Ricin B: 32/120 kDa.

SELECT PRODUCT CITATIONS

1. Carter, J.E., Odumosu, O. and Langridge, W.H. 2010. Expression of a ricin toxin B subunit: Insulin fusion protein in edible plant tissues. Mol. Biotechnol. 44: 90-100.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.