PRODUCT SPECIFICATION

POL 002 Anti Botulinum Toxin B
Rabbit polyclonal antibody

Article No. 51474
Product Name POL 002 Anti Botulinum Toxin B
Batch 03081Rab

Description
Preparation: Sterile filtered, 0.22 μm pore size
Content: 10 ml ~10 mg/mL IgG
Solvent: Serum with 15 mM NaNO_3
Storage: 2-8 ºC

Antigen
The toxins produced by various strains of Clostridium botulinum are the strongest biotoxins known. In humans these toxins are responsible for food poisoning (botulism) caused by the growth of the bacterium under anaerobic conditions e.g. in canned food. The poisoning manifests itself as a symmetrical paralysis culminating in death caused by respiratory failure.

The toxins are produced as binary proteins that possess a heavy chain (approximately 100 kDa) and a light chain (approximately 50 kDa). The heavy chain is a binding component that directs the toxin to vulnerable cells, and the light chain is an enzyme that has mono(ADP-ribosyl)ating activity (1).

The toxins are divided into 7 groups named A, B, C, D, E, F, and G where A, B, E, and F are associated with human disease and C and D mainly with disease in animals (cattle). Type G is not known to cause human disease.

Immunogen
Type B botulinum toxin treated with formaldehyde for detoxification.

Specificity
In an ELISA testing against botulinum toxin A through F, this serum reacts with type B toxin and it has very weak cross reactivity with type A and F toxin. However, type protection in a mouse bioassay is monospecific for the type B toxin.

Epitope Specificity
Not determined.

Reactivity
In a Botulinum toxin type B ELISA coated with 0.1 µg toxin/well the titre of this serum is 1:1500 – 1:3000. Inhibitory activity in the mouse bioassay is specific for lethal doses of botulinum toxin type B at a serum dilution of 1:100.

Immunization
Rabbits were subcutaneously immunized with toxoid together with Freund’s complete adjuvant and Al(OH)_3, initially and then likewise but with Freund’s incomplete adjuvant in subsequent immunizations.

Application
<table>
<thead>
<tr>
<th>Method</th>
<th>Usability</th>
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<tbody>
<tr>
<td>ELISA</td>
<td>yes</td>
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<tr>
<td>Immunoblotting</td>
<td>nd.</td>
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<td>Immuno.fluoresc.</td>
<td>nd.</td>
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References

Conditions
For research use only. Not for use in diagnostic procedures.
The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.

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