PRODUCT SPECIFICATION

POL 003 Anti Botulinum Toxin C
Rabbit polyclonal antibody

Article No. 51469
Product Name POL 003 Anti Botulinum Toxin C
Batch 03082Rab

Description
Preparation: Sterile filtered, 0.22 μm pore size
Content: 1 ml ~10 mg/mL IgG
Solvent: Serum with 15 mM NaN₃
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 C botulinum toxin treated with formaldehyde for detoxification.

Specificity
In an ELISA testing against botulinum toxin A through F, this serum reacts with type C toxin
and it has cross reactivity with type D toxin. Protection for toxin type C in a mouse bioassay has
been observed.

Epitope Specificity
Not determined.

Reactivity
In a Botulinum toxin type C ELISA coated with 0.1 µg toxin/well the titre of this serum is
1:2500 – 1:5000. Inhibitory activity in the mouse bioassay is specific for lethal doses of
botulinum toxin type C and D 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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<tr>
<td>Immuno.fluoresc.</td>
<td>nd</td>
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</tbody>
</table>

References
1) Simpson LL, Zepeda H, Ohishi I. (1988) Partial characterization of the enzymatic activity associated with the
binary toxin (type C2) produced by Clostridium botulinum. Infect Immun. 56, 24-27.

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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