**exo-α-SIALIDASE from Clostridium perfringens (Lot 150601a)**

**Recombinant**

E-SIALCP 06/15
(EC 3.2.1.18)  exo-α-sialidase; acetylneuraminyl hydrolase
CAZy: GH Family 33

**PROPERTIES**

1. **ELECTROPHORETIC PURITY:**
   - Single band on SDS-gel electrophoresis (MW ~ 43,600)
   - Single major band on isoelectric focusing (pl ~ 6.0)

2. **SPECIFIC ACTIVITY:**
   306 U/mg protein (on pNP-α-D-N-acetylneuraminic acid) at pH 7.0 and 37°C.
   *One Unit* of sialidase activity is defined as the amount of enzyme required to release
   one µmole of p-nitrophenol per minute from pNP-α-D-N-acetylneuraminic acid (1 mM)
   in sodium phosphate buffer (100 mM) pH 7.0 and 37°C, monitored at 410 nm.
   * Extinction coefficient (ε) of p-nitrophenol = 5751 M⁻¹ x cm⁻¹

3. **SPECIFICITY:**
   Hydrolysis of unbranched, non-reducing terminal α-2,3-linked, α-2,6-linked >> α-2,8-linked
   N-acetylneuraminic acid (NANA; Neu5Ac) residues from glycoproteins and
   oligosaccharides of glycoconjugates.

4. **PHYSICOCHEMICAL PROPERTIES:**
   pH Optima: 4.5 - 8.0**

5. **STORAGE CONDITIONS:**
   The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium
   azide and should be stored at 4°C. **Swirl to mix the enzyme immediately prior to use.**

6. **DESIALLYLATION ASSAY (Suggested):**

<table>
<thead>
<tr>
<th>Glycoprotein or glycan</th>
<th>~ 100 µg</th>
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<tbody>
<tr>
<td>distilled water (at ~ 25°C)</td>
<td>14 µL</td>
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<tr>
<td>sodium phosphate (250 mM; pH 6.0)</td>
<td>4 µL</td>
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<tr>
<td>Sialidase</td>
<td>2 µL</td>
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Mix and incubate for 1hr at ~ 37°C

7. **REFERENCES:**
   Susanne Kruse, Reinhard G. Kleineidam, Peter Roggentin, & Roland Schauer (1996).  Expression and Purification of a Recombinant

   ** Literature values