exo-α-SIALIDASE from Salmonella typhimurium (Lot 120501c)

Recombinant
E-SIALST 03/19
(EC 3.2.1.18) exo-α-sialidase; acetylneuraminyl hydrolase
CAZy Family: GH33

PROPERTIES

1. ELECTROPHORETIC PURITY:
   - Single band on SDS-gel electrophoresis (MW ~ 42,900)
   - Single major band on isoelectric focusing (pI ~ 8.5)

2. SPECIFIC ACTIVITY:
   802 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:  5.5 - 7.0**

5. STORAGE CONDITIONS:
The enzyme is supplied in 20 mM Tris.HCl pH 7.5, 50 mM NaCl, 5 mM EDTA plus
0.02% (w/v) sodium azide and should be stored at 4°C.

6. DESIALYLATION 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 1 hr at ~ 37°C

7. REFERENCES:

** Literature values