# Active Recombinant Arthrobacter ureafaciens Sialidase Au α-(2-3,6,8,9)

**Cat. No.** Sialidase Au α-(2-3,6,8,9)-012A **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Sialidase Au α-(2-3,6,8,9) from Arthrobacter ureafaciens expressed in E. Coli. |
| **Species** | Arthrobacter ureafaciens |
| **Source** | E. coli |
| **Description** | α(2-3,6,8,9) Sialidase Au cleaves all cleaves all non-reducing terminal sialic acid residues from complex carbohydrates and glycoproteins. The relative cleavage rates for different linkages are: α(2-6) > α(2-3) > α(2-8), α(2-9). In addition, the enzyme will cleave branched sialic acids (linked to an internal residue). This property makes it unique among sialidases. High concentrations of enzymes and prolonged incubation times may be required for cleaving branched residues. α(2-3,6,8,9) Sialidase Au is isolated from a clone of Arthrobacter ureafaciens. The enzyme has been extensively characterized using oligosaccharide standards. |
| **Form** | Sterile-filtered solution |
| **EC** | 3.2.1.18 |
| **Specificity** | Cleaves all non-reducing terminal branched and unbranched sialic acids |
| **Contents** | Sialidase Au in 20 mM Tris-HCl, 25 mM NaCl, pH 7.5 5× Reaction Buffer 250 mM |

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| | sodium phosphate, pH 6.0 |
| **Bio-activity** | Activity: > 5 U/mL Specific Activity: > 135 U/mg Defined as the amount of enzyme required to produce 1 µmole of methylumbelliferone in 1 minute at 37 centigrade, pH 5.0 from MU-NANA [2′-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid]. |
| **Molecular Mass** | 70 kDa |
| **Suggested usage** | 1. Add up to 100 µg of glycoprotein or 1 nmol of oligosaccharide to tube. 2. Add water to 14 µL 3. Add 4 µL 5× Reaction Buffer. 4. Add 2 µL α(2-3,6,8,9) Sialidase Au. 5. Incubate at 37 centigrade for 1 hour. Desialylation may be monitored by SDS-PAGE if the size differential between native and desialylated protein is sufficient for detection. |
| **Purity** | Each lot of α(2-3,6,8,9) Sialidase Au is tested for contaminating protease as follows; 10 µg of denatured BSA is incubated for 24 hours with 2 µL of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation. The production host strain has been extensively tested and does not produce any detectable glycosidases. |
| **Note** | Longer incubation times are necessary if branched sialic acids are present. |
| **Stability** | Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity. Enzyme remains active at 37 centigrade for at least one week. |
| **Storage** | Store enzyme at 4 centigrade. |
| **Storage Buffer** | The enzyme is provided as a sterile-filtered solution in 20 mM Tris-HCl, 25 mM NaCl (pH 7.5). |

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## GENE INFORMATION

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| **Synonyms** | Sialidase Au α-(2-3,6,8,9) |
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