

**Catalog No. GEJ-004**

**Recombinant beta-galactoside-alpha-2,3-sialyltransferase (EC No. : 2. 4. 99. 4)**

<b>Origin</b>	Expressed in <i>E.coli.</i> , recombinant form of $\alpha$ 2,3-sialyltransferase from <i>Photobacterium phosphoreum</i> JT-ISH-467
<b>Physical form</b>	Solution in 20 mmol/L bis-tris, pH6.0, 70 mmol/L NaCl, 0.3% TritonX-100
<b>Total activity* (Volume)</b>	0.5U (50 $\mu$ l) *: Beta-galactosidase activity and Protease activity were not detected. *: Neuraminidase activity was detected slightly.
<b>Mw (kDa)</b>	44.1
<b>Optimal pH and Temperature (°C)</b>	pH=7.0-8.0, 40°C
<b>Storage</b>	-20°C or -80°C
<b>Standard Assay Method</b>	Sialyltransferase activity was assayed by measuring [6- <sup>14</sup> C]-NeuAc transferred from CMP-[6- <sup>14</sup> C]-NeuAc to lactose as an acceptor substrate. Add 0.5M of NaCl to the reaction mixture. The radioactivity of CMP-[6- <sup>14</sup> C]-NeuAc that had transferred to the acceptor was measured with a liquid scintillation counter, and the amount of NeuAc transferred was calculated.  $\text{CMP-[6-}^{14}\text{C]-NeuAc} + \text{lactose} \longrightarrow \text{[6-}^{14}\text{C]-NeuAc-lactose} + \text{CMP}$
<b>Activity definition</b>	One Unit is defined as the amount of enzyme that transfers 1.0 $\mu$ mol of NeuAc from CMP-NeuAc to lactose per minute at 30°C, pH7.0
<b>References</b>	[1] Tsukamoto, H., et al. <i>Glycobiology</i> . <b>14</b> , 1124 (2004) [2] Mine, T., et al. ICS2010., Abstract C-P3-116.
<b>Description</b>	The enzyme is a mutated protein, substituted glutamic acid at position 342 of the polypeptide for alanine

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