

NEURAMINIDASE

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	SDZ500380
Appearance:	White amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 3.2.1.18
CAS Number:	9001-67-6
Storage temperature:	-20°C
Specific activity:	≥ 300U/mg protein
Unit definition:	One unit will convert one micromole of 3'-sialyllactose to N-acetylneuramate per minute at pH 6.5 at 37°C.

PROPERTIES

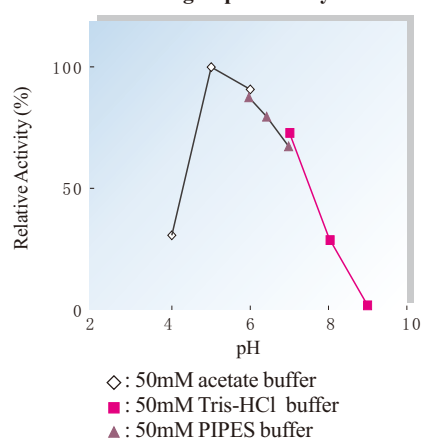
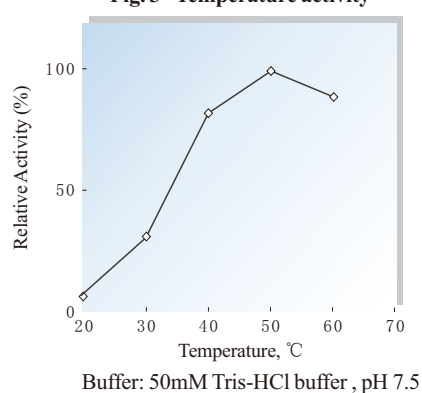
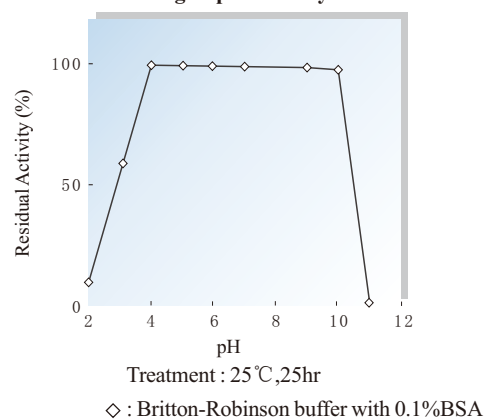
Molecular weight:	52 kDa (SDS-PAGE)	
Isoelectric point:	5.9	
Michaelis constant:	$1.02 \times 10^{-3} \text{M}$ (sialyllactose)	
Optimum pH:	5.0	{Fig. 1}
Optimum temperature:	50°C	{Fig. 3}
pH Stability:	4.0-10.0 (25°C, 25hr)	{Fig. 2}
Thermal stability:	< 40°C (pH 7.5, 10min)	{Fig. 4}
Inhibitors:	Fe^{3+} , Zn^{2+} , NEM, SDS	
Effect of various chemicals:		{Table 1}

Table 1.**Effect of Various Chemicals on NRH**

[The enzyme dissolved in 100mM PIPES buffer, pH 6.5 (10U/ml) was incubated with each chemical at 37°C for 2hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl ₂	2.0	98%
CoCl ₂	2.0	105%
CuSO ₄	2.0	114%
FeCl ₃	2.0	72%
MgSO ₄	2.0	103%
MnSO ₄	2.0	98%
NiCl ₂	2.0	98%
ZnSO ₄	2.0	75%

Chemical	Concn. (mM)	Residual activity
BME	2.0	103%
NEM	2.0	42%
EDTA	5.0	105%
Proclin	0.045%	109%
NaN ₃	20.0	98%
Na-cholate	0.10%	109%
SDS	0.05%	12%
Triton X-100	0.10%	111%
Tween 20	0.10%	119%

Fig. 1 pH Activity**Fig. 3 Temperature activity****Fig. 2 pH Stability****Fig. 4 Thermal stability**