

## **NEURAMINIDASE**

### **REACTION:**



### **PRODUCT DESCRIPTION**

Catalog No.:	qs50050
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:	$1.02 \times 10^{-3} M$ (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 <sup>3+</sup> , Zn <sup>2+</sup> , 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 <sub>2</sub>	2.0	98%
CoCl <sub>2</sub>	2.0	105%
CuSO <sub>4</sub>	2.0	114%
FeCl <sub>3</sub>	2.0	72%
MgSO <sub>4</sub>	2.0	103%
MnSO <sub>4</sub>	2.0	98%
NiCl <sub>2</sub>	2.0	98%
ZnSO <sub>4</sub>	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 <sub>3</sub>	20.0	98%
Na-cholate	0.10%	109%
SDS	0.05%	12%
Triton X-100	0.10%	111%
Tween 20	0.10%	119%

