abcam

Product datasheet

Neuraminidase Activity Assay Kit (Fluorometric) ab185436

3 Images

Overview

Product name	Neuraminidase Activity Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Serum, Tissue, Adherent cells, Suspension cells
Assay type	Enzyme activity (quantitative)
Sensitivity	< 2 mU/ml
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Abcam's Neuraminidase Activity Assay Kit (Fluorometric) (ab185436) provides a simple and sensitive method for measuring neuraminidase (NA) activity using fluorescence (Ex/Em = 530/590 nm). The assay utilizes NA Probe to detect the neuraminidase activity. This high-throughput adaptable assay kit can detect NA activity as low as 2.0 mU/mL in a variety of samples.
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K732 Neuraminidase Activity Fluorometric Assay Kit. K732-100 is the same size as the 100 test size of ab185436. Neuraminidase (NA) is a very common enzyme that hydrolyzes terminal sialic acid residues on polysaccharide chains; most often a galactose residue. NA activity plays a key role in the invasion of target cells and the replication of influenza virus. NA activity also assists in the elution of progeny viruses from infected cells, and prevents self-aggregation of virus. Thus, NA is an important target for drug development.
Platform	Microplate reader

Properties

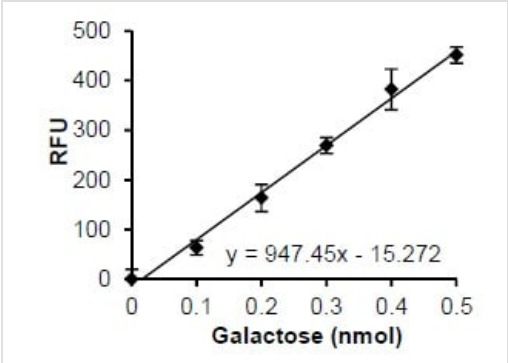
Storage instructions	Store at -20°C. Please refer to protocols.

Components	100 tests
Galactose Standard (100nmol/ul)	1 x 0.1ml
NA Assay Buffer	1 x 30ml

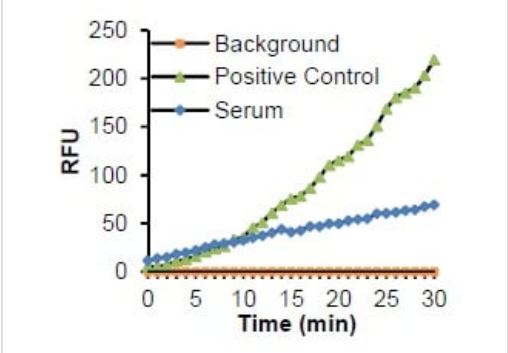
Components	100 tests
NA Enzyme Mix I	1 vial
NA Enzyme Mix II	1 vial
NA Positive Control	1 x 0.1ml
NA Probe	1 x 0.2ml
NA Substrate	1 vial

Function	Catalyzes the removal of sialic acid (N-acetylneuramic acid) moities from glycoproteins and glycolipids. To be active, it is strictly dependent on its presence in the multienzyme complex. Appears to have a preference for alpha 2-3 and alpha 2-6 sialyl linkage.
Tissue specificity	Highly expressed in pancreas, followed by skeletal muscle, kidney, placenta, heart, lung and liver. Weakly expressed in brain.
Involvement in disease	Defects in NEU1 are the cause of sialidosis (SIALIDOSIS) [MIM:256550]. It is a lysosomal storage disease occurring as two types with various manifestations. Type 1 sialidosis (cherry red spot-myoclonus syndrome or normosomatic type) is late-onset and it is characterized by the formation of cherry red macular spots in childhood, progressive debilitating myoclonus, insiduous visual loss and rarely ataxia. The diagnosis can be confirmed by the screening of the urine for sialyloligosaccharides. Type 2 sialidosis (also known as dysmorphic type) occurs as several variants of increasing severity with earlier age of onset. It is characterized by the presence of abnormal somatic features including coarse facies and dysostosis multiplex, vertebral deformities, mental retardation, cherry-red spot/myoclonus, sialuria, cytoplasmic vacuolation of peripheral lymphocytes, bone marrow cells and conjunctival epithelial cells.
Sequence similarities	Belongs to the glycosyl hydrolase 33 family. Contains 4 BNR repeats.
Domain	A C-terminal internalization signal (YGTL) appears to allow the targeting of plasma membrane proteins to endosomes.
Post-translational modifications	N-glycosylated. Phosphorylation of tyrosine within the internalization signal results in inhibition of sialidase internalization and blockage on the plasma membrane.
Cellular localization	Lysosome membrane. Lysosome lumen. Cell membrane. Cytoplasmic vesicle. Localized not only on the inner side of the lysosomal membrane and in the lysosomal lumen, but also on the plasma membrane and in intracellular vesicles.

Images

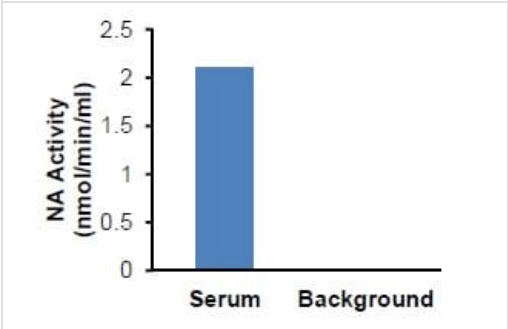


Galactose Standard Curve.



NA activity.

NA activity in normal Human serum (1 µl) and positive control (1 µl).



Calculated activity of serum.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors