

Product datasheet

N-Acetylglucosaminidase (beta-NAG) Activity Assay Kit (Colorimetric) ab204705

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Overview

Product name	N-Acetylglucosaminidase (beta-NAG) Activity Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Urine, Serum, Tissue, Adherent cells, Suspension cells
Assay type	Enzyme activity
Sensitivity	50 μ U
Assay time	0h 25m
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>N-Acetylglucosaminidase (beta-NAG) Activity Assay Kit (Colorimetric) (ab204705) provides a simple and sensitive method for monitoring NAG enzymatic activity. In this assay, NAG uses a synthetic p-nitrophenol derivative (R-pNP) as a NAG substrate and releases pNP which can be measured at absorbance (OD 400 nm). The assay can detect as low as 50 μU of NAG activity in a variety of samples.</p> <p>beta-NAG assay protocol summary:</p> <ul style="list-style-type: none">- add samples and standards to wells- add NAG substrate and incubate for 5-30 min- add stop solution and incubate for 10 min- analyze with microplate reader
Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K733 β-N-Acetylglucosaminidase Activity Assay Kit (Colorimetric). K733-100 is the same size as the 100 test size of ab204705.</p> <p>β-N-Acetylglucosaminidase (NAG, EC 3.2.1.52) is a lysosomal enzyme that is expressed in various tissues, including kidney, liver and lungs. NAG can cleave N-acetyl-glucosamine, a monosaccharide derivative of glucose. Its concentration in urine is minimal due to its inability to cross the glomerular basal membrane. Increased concentration of NAG in urine indicates renal tubular cell breakdown. Acute Kidney Injury (AKI) is the sudden loss of kidney functions, causing electrolyte imbalance, and retention of urea and other nitrogenous products. NAG has become one of the most studied and used biomarkers for the detection and diagnosis of AKI.</p>
Platform	Microplate reader

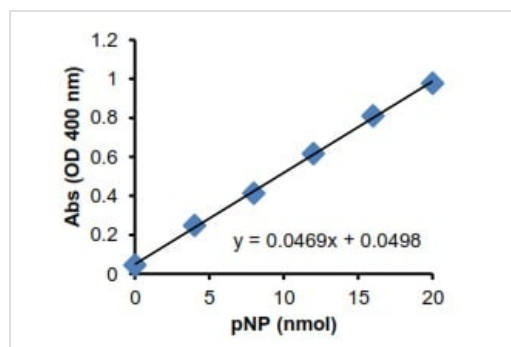
Properties

Storage instructions

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

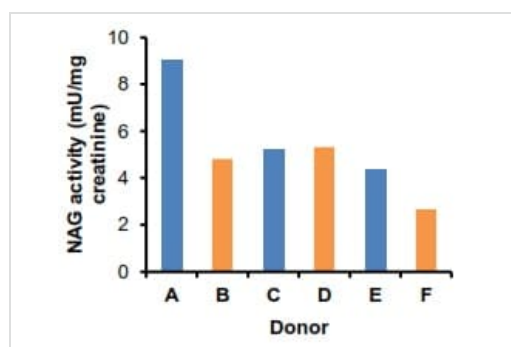
Components	100 tests
NAG Assay Buffer	1 x 35ml
NAG Positive Control	1 vial
NAG Stop Solution	1 x 3ml
NAG Substrate	1 x 6ml
Nitrophenol Standard	1 x 100µl

Images



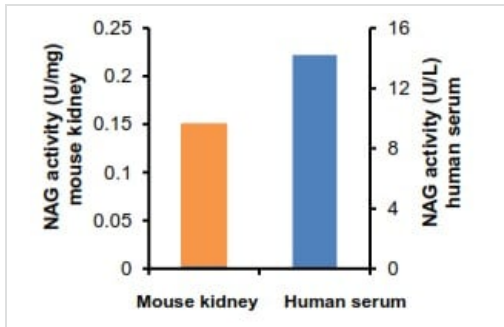
Typical pNP Standard calibration curve.

N-Acetylglucosaminidase (beta-NAG) Activity Assay
Kit (Colorimetric) (ab204705)



Measurement of NAG activity in human urine from different donors. Undiluted samples (70 µL) were incubated for 30 min. with NAG substrate.

N-Acetylglucosaminidase (beta-NAG) Activity Assay
Kit (Colorimetric) (ab204705)



Measurement of NAG activity in mouse kidney (10 µg) and human serum (20 µL). Samples were incubated for 30 min. with NAG substrate.

N-Acetylglucosaminidase (beta-NAG) Activity Assay Kit (Colorimetric) (ab204705)

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