

DNase I Assay Kit (Fluorometric) ab234056

★★★★★ 1 Abreviews 5 References 3 Images

Overview

Product name	DNase I Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Serum, Purified protein
Assay type	Enzyme activity (quantitative)
Species reactivity	<b>Reacts with:</b> Mammals, Other species
Product overview	DNase I Assay Kit (Fluorometric) (ab234056) allows for quantitative evaluation of DNase I activity of purified enzymes and their inhibitors as well as comparative examination of DNase I activity in biological samples. Enzyme activity is detected upon cleavage of a DNA Probe, which yields a fluorescent DNA product measured at Ex/Em = 651/681 nm. The limit of quantification (L.O.Q) is 178 fmoles of DNA probe cleaved per minute per mL.

Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K429 DNase I Activity Assay Kit (Fluorometric). K429-100 is the same size as the 100 test size of ab234056.</p> <p>Deoxyribonuclease I (DNase I) is an endonuclease that cleaves DNA phosphodiester bonds yielding 5'-phosphorylated and 3'-hydroxylated oligonucleotides. DNase I targets single-stranded DNA, double-stranded DNA, and chromatin in a non-specific manner. As an important player in cellular waste management, DNase I is normally secreted extracellularly to clear the system from circulating cell-free DNA, foreign DNA from food digestion or potential pathogens, and endogenous chromosomal DNA from apoptotic and necrotic cells. Abnormal DNase I activity occurs in association with a variety of cancers and auto-immune illnesses that exhibit elevated levels of cell-free DNA. Furthermore, DNase I has been therapeutically used in cystic fibrosis patients to degrade DNA and reduce sputum viscosity.</p>
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Platform	Microplate reader
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Properties

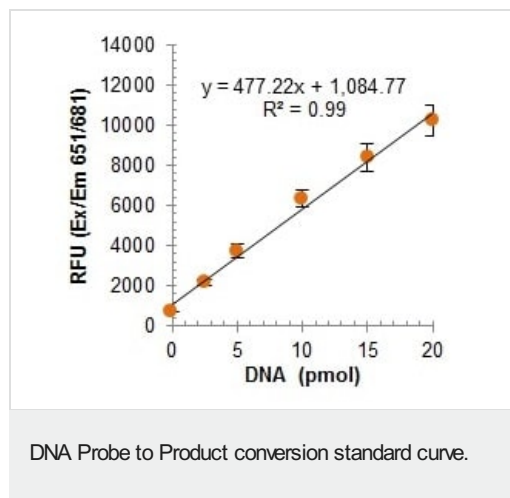
Storage instructions	Store at -20°C. Please refer to protocols.
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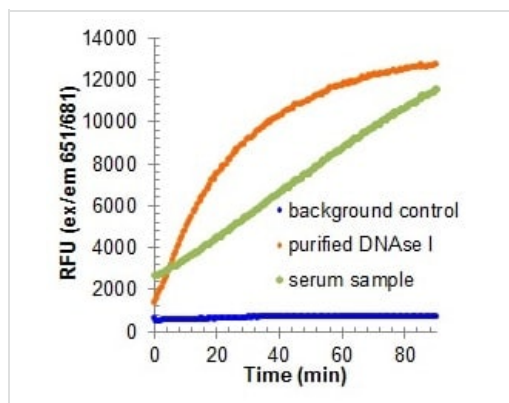
Components	100 tests
10X DNase I Assay Buffer	1 x 1.1ml

Components	100 tests
DNA Probe I	1 vial
DNA Probe Resuspension Buffer	1 x 250µl
DNase I Positive Control	1 vial
Molecular Biology Grade Water	1 x 25ml
Positive Control Resuspension Buffer	1 x 1ml

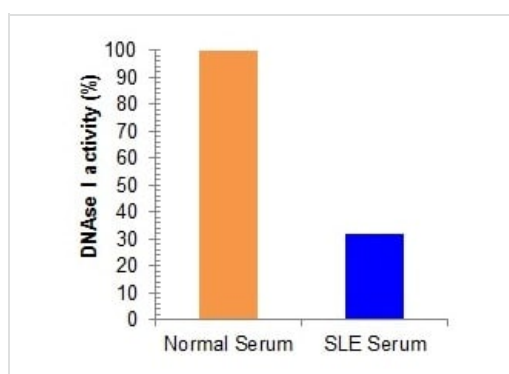
<b>Function</b>	Among other functions, seems to be involved in cell death by apoptosis. Binds specifically to G-actin and blocks actin polymerization.
<b>Tissue specificity</b>	Principally in tissues of the digestive system. Highest levels found in urine, but also relatively abundant in semen and saliva.
<b>Sequence similarities</b>	Belongs to the DNase I family.
<b>Cellular localization</b>	Secreted. Nucleus envelope. Secretory protein, stored in zymogen granules and found in the nuclear envelope.

## Images





Representative activity curve for purified DNase I (orange), serum sample (green), and background control (blue) at 37°C.



Comparative analysis of DNase I activity from 25 µl undiluted single donor normal vs. Systemic Lupus Erythematosus (SLE) patient serum sample.

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