

Trypsin Activity Assay Kit (Colorimetric) ab102531

[13 References](#) [4 Images](#)

Overview

Product name	Trypsin Activity Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts
Assay type	Enzyme activity
Assay time	2h 00m
Species reactivity	Reacts with: Mammals
Product overview	Trypsin Activity Assay Kit (Colorimetric) ab102531 is simple and fast assay to quantify trypsin activity.

In the trypsin activity assay protocol, trypsin cleaves a substrate to generate p-nitroaniline (p-NA) which is detected at OD = 405 nm. Since the color intensity is proportional to p-NA content, trypsin activity can be accurately measured.

Trypsin activity assay protocol summary:

- add samples, positive control and standards to wells
- add chymotrypsin inhibitor to sample and positive control wells and incubate for 10 min at room temp
- add reaction mix
- analyze every 2-3 min for 1-2 hr with microplate reader in kinetic mode at 25°C

Notes This product is manufactured by BioVision, an Abcam company and was previously called K771 Trypsin Activity Colorimetric Assay Kit. K771-100 is the same size as the 100 test size of ab102531.

Platform Microplate reader

Properties

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

Components	100 tests	2000 tests
Assay Buffer I	1 x 25ml	20 x 25ml

Components	100 tests	2000 tests
Chymotrypsin Inhibitor II	1 x 100 units	20 x 100 units
pNA Standard II	1 x 400µl	20 x 400µl
Trypsin Inhibitor	1 x 100µl	20 x 100µl
Trypsin Positive Control	1 vial	20 vials
Trypsin Substrate	1 x 200µl	20 x 200µl

Function

Has activity against the synthetic substrates Boc-Phe-Ser-Arg-Mec, Boc-Leu-Thr-Arg-Mec, Boc-Gln-Ala-Arg-Mec and Boc-Val-Pro-Arg-Mec. The single-chain form is more active than the two-chain form against all of these substrates.

Involvement in disease

Defects in PRSS1 are a cause of hereditary pancreatitis (HPC) [MIM:167800]; also known as chronic pancreatitis (CP). HPC is an autosomal dominant disease characterized by the presence of calculi in pancreatic ducts. It causes severe abdominal pain attacks.

Sequence similarities

Belongs to the peptidase S1 family.
Contains 1 peptidase S1 domain.

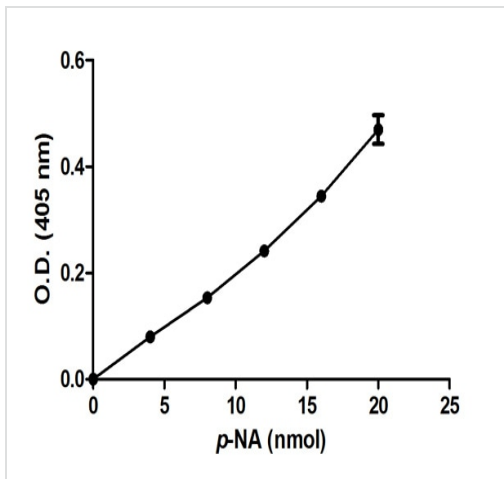
Post-translational modifications

Occurs in a single-chain form and a two-chain form, produced by proteolytic cleavage after Arg-122.

Cellular localization

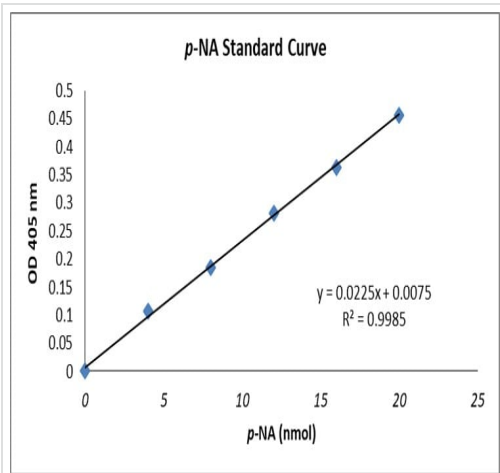
Secreted > extracellular space.

Images



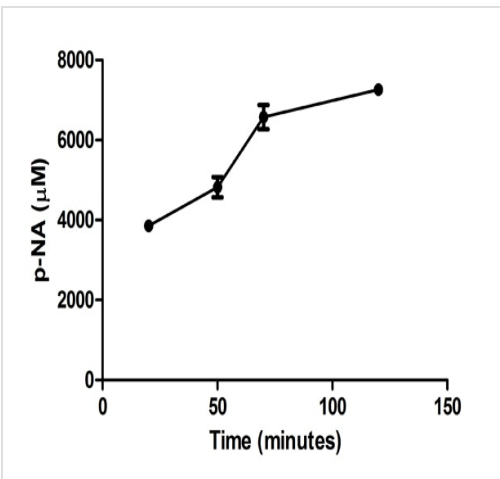
p-NA standard curve measured in duplicates ((+/- SD), background subtracted) after 60 minutes incubation.

Functional Studies - Trypsin Activity Detection Kit
(ab102531)



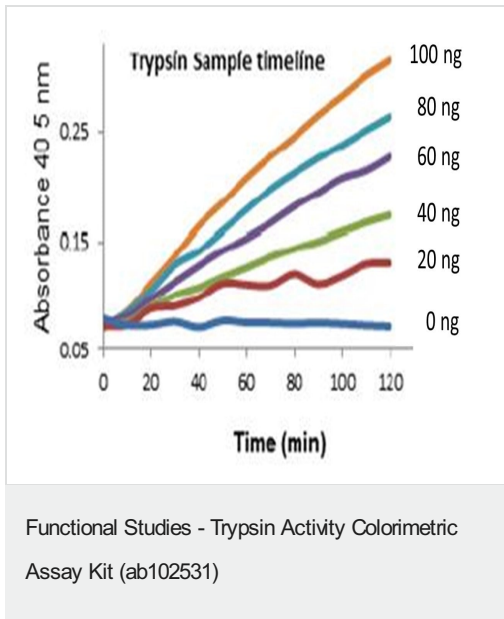
Example of standard curve obtained using ab102531, following assay protocol. The curve should be used as guideline only.

Functional Studies - Trypsin Activity Detection Kit (ab102531)



Trypsin levels were kinetically measured in commercially purchased trypsin (1x); background signal subtracted (duplicates +/- SD).

Functional Studies - Trypsin Activity Detection Kit (ab102531)



Example of Trypsin sample timeline obtained using ab102531

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