abcam

Product datasheet

Arginase Activity Assay Kit (Colorimetric) ab180877

19 References 2 Images

Overview

Product name	Arginase Activity Assay Kit (Colorimetric)
Detection method	Colorimetric
Sample type	Tissue, Adherent cells, Suspension cells
Assay type	Enzyme activity (quantitative)
Sensitivity	< 0.2 U/ml
Assay time	1h 00m
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Arginase Activity Assay Kit (Colorimetric) ab180877 is a simple, sensitive and rapid assay to quantify arginase activity. In the arginase assay protocol, arginase reacts with arginine and undergoes a series of reactions that form an intermediate that react stoichiometrically with the probe to generate a colored product that can be detected at OD = 570 nm. The kit can detect less than 0.2 U/L Arginase activity in 96-well assay format. Arginase assay protocol summary: - add samples and standards to wells - add arginase substrate mix to sample wells only - incubate for 20 min - add arginase assay reaction mix to all wells - analyze with microplate reader in kinetic mode for 10-30 min
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K755 Arginase Activity Colorimetric Assay Kit. K755-100 is the same size as the 100 test size of ab180877. Arginase (EC 3.5.3.1) is the final enzyme of the Urea Cycle. It converts L-arginine into urea and L-ornithine and plays an important role in removing ammonium ion from the body.
Platform	Microplate reader

Properties

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

Components	100 tests
Arginase Positive Control	1 vial
Arginine	1 vial
Assay Buffer XIV	1 x 25ml
Converter Enzyme V	1 vial
Developer I	1 vial
Development Enzyme Mix I	1 vial
H2O2 Standard	1 x 100µl
OxiRed Probe	1 x 200ml

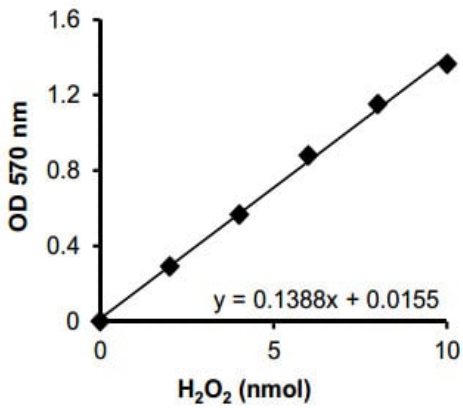
Pathway Nitrogen metabolism; urea cycle; L-ornithine and urea from L-arginine: step 1/1.

Involvement in disease Defects in ARG1 are the cause of argininemia (ARGIN) [MIM:207800]; also known as hyperargininemia. Argininemia is a rare autosomal recessive disorder of the urea cycle. Arginine is elevated in the blood and cerebrospinal fluid, and periodic hyperammonemia occurs. Clinical manifestations include developmental delay, seizures, mental retardation, hypotonia, ataxia, progressive spastic quadriplegia.

Sequence similarities Belongs to the arginase family.

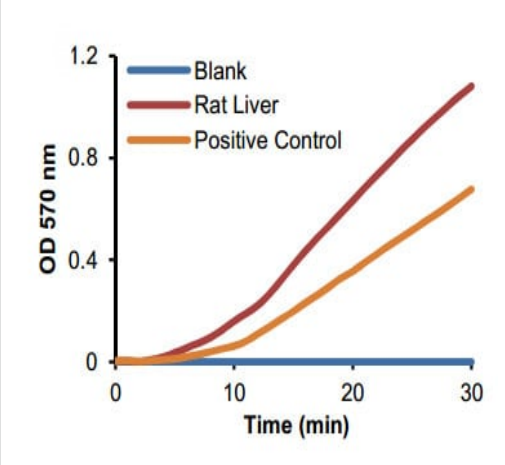
Cellular localization Cytoplasm.

Images



H202 Standard Curve

H_2O_2 Standard Curve. Assay performed following kit protocol.



Arginase activity

Arginase activity in rat liver lysate (3 µg) & Positive Control (2 µL).

Assays were performed following the kit protocol.

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