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Product datasheet

Branched Chain Amino Acid Assay Kit / BCAA Assay Kit ab83374

21 References 4 Images

Overview

Product name	Branched Chain Amino Acid Assay Kit / BCAA Assay Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids
Assay type	Quantitative
Sensitivity	> 0.2 nmol/well
Assay time	0h 40m
Product overview	Branched Chain Amino Acid Assay Kit / BCAA Assay Kit ab83374 provides a simple convenient means of measuring the BCAA's in biological samples. The BCAA assay protocol uses an enzyme reaction in which BCAA is oxidatively deaminated, producing NADH which reduces a probe, generating a colored product (λmax = 450 nm). The Branched Chain Amino Acid Assay Kit measures BCAA's in the range of 0 to 10 nmol per sample with a detection limit of ~0.2 nmol (~10 µM BCAA in sample). BCAA's are present in serum ~ 0.1-0.4 mM each (~0.125-1.5 mM combined). BCAA assay protocol summary: - add samples and standards to wells - add reaction mix and incubate for 30 min - analyze with a microplate reader
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K564 Branched Chain Amino Acid (Leu/Ile/Val) Colorimetric Assay Kit. K564-100 is the same size as the 100 test size of ab83374. The branched-chain amino acids or BCAA's, refer to the amino acids with non-linear aliphatic side-chains, namely leucine, isoleucine and valine. These three essential amino acids make up approximately 1/3 of skeletal muscle in the human body.
Platform	Microplate reader

Properties

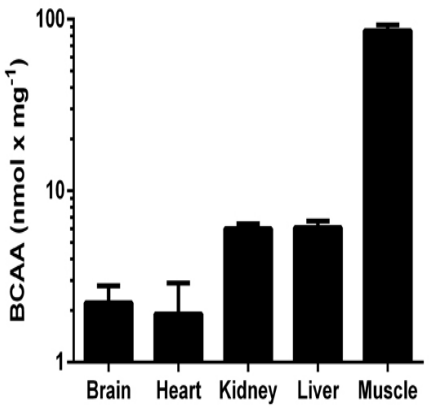
Storage instructions Store at -20°C. Please refer to protocols.

Components	100 tests
Assay Buffer IV	1 x 25ml
BCAA Enzyme Mix	1 vial
Developer Solution III	1 vial
Leucine Standard	1 x 100µl

Relevance

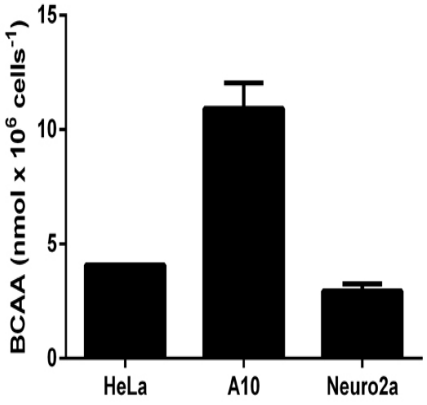
The branched-chain amino acids or BCAA's, refer to the amino acids with non-linear aliphatic side-chains, namely leucine, isoleucine and valine. These three essential amino acids make up approximately 1/3 of skeletal muscle in the human body. BCAA's are currently used clinically to aid in the recovery of burn victims, as well as for strength supplementation for athletes. BCAA's, primarily Leu, can stimulate insulin secretion. The BCAA's have also been implicated in a wide range of other physiological effects.

Images



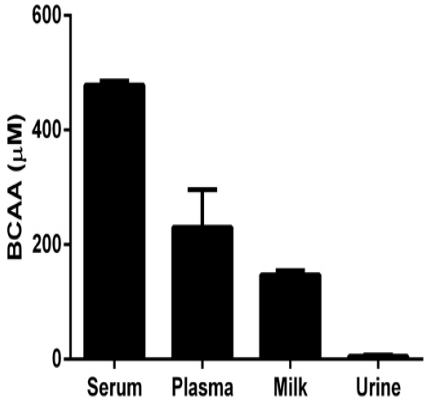
Functional Studies - Branched Chain Amino Acid Assay Kit (ab83374)

BRCAA levels measured in mouse tissue lysates (mg of extracted protein; background signal subtracted, mean of duplicates; +/- SD).



BRCAA levels measured in cell lysates (background signal subtracted, mean of duplicates; +/- SD).

Functional Studies - Branched Chain Amino Acid Assay Kit (ab83374)



BRCAA levels measured in human biological fluids (background signal subtracted, mean of duplicates; +/- SD).

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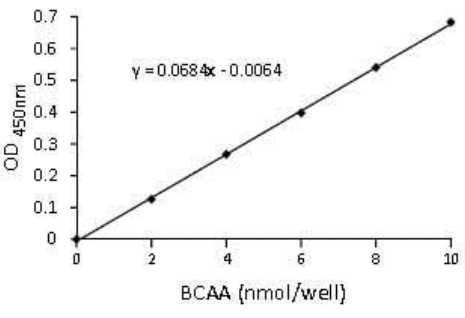

Leucine Standard Curve performed according to the attached protocol.

Functional Studies - Branched Chain Amino Acid Assay Kit (ab83374)

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