

## Product datasheet

# Branched Chain Amino Acid Assay Kit ab83374

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### Overview

<b>Product name</b>	Branched Chain Amino Acid Assay Kit
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids
<b>Assay type</b>	Quantitative
<b>Sensitivity</b>	> 0.2 nmol/well
<b>Assay time</b>	0h 40m
<b>Product overview</b>	Abcam's Branched Chain Amino Acid Assay Kit provides a simple convenient means of measuring the BCAA's in a variety of biological samples. The kit utilizes an enzyme assay in which BCAA is oxidatively deaminated, producing NADH which reduces the probe, generating a colored product ( $\lambda_{max} = 450 \text{ nm}$ ). Abcam's 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 $\mu\text{M}$ BCAA in sample). BCAA's are present in serum ~ 0.1-0.4 mM each (~0.125-1.5 mM combined). Visit our <a href="#">FAQs page</a> for tips and troubleshooting.

**Notes**

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.

**Platform** Microplate reader

### Properties

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

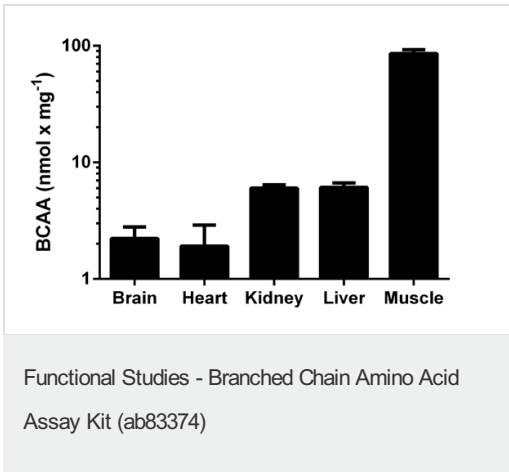
Components	Identifier	100 tests
BCAA Assay Buffer	WM	1 x 25ml
BCAA Enzyme Mix (lyophilized)	Green	1 vial
Leu Standard (1 $\mu\text{mol}$ )	Yellow	1 x 100 $\mu\text{l}$
WST Substrate Mix (lyophilized)	Red	1 vial

Components	Identifier	100 tests
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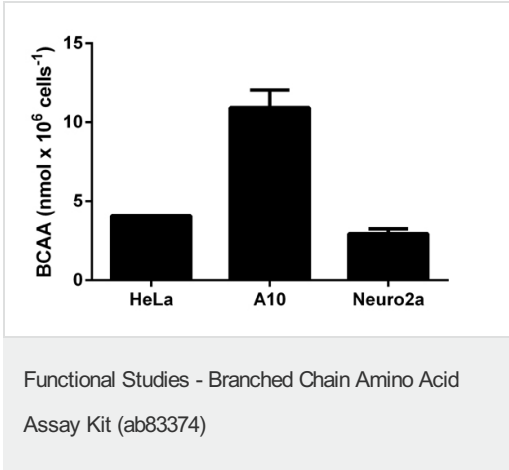
**Relevance**

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.

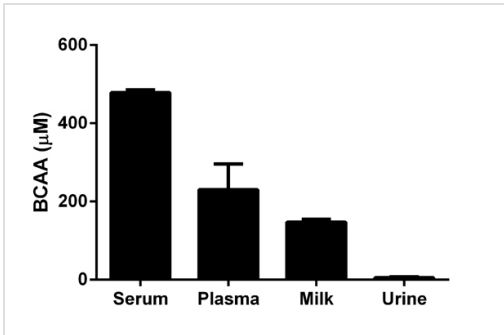
**Images**



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

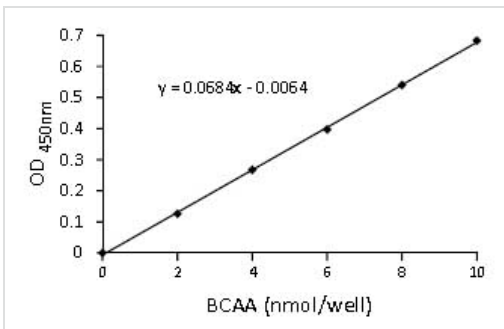


BRCAA levels measured in cell lysates (background signal subtracted, mean of duplicates; +/- SD).



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

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



Leucine Standard Curve performed according to the attached protocol.

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

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