

Alpha Ketoglutarate (alpha KG) Assay Kit ab83431

[34 References](#) [2 Images](#)

Overview

Product name	Alpha Ketoglutarate (alpha KG) Assay Kit
Detection method	Colorimetric/Fluorometric
Sample type	Tissue, Adherent cells, Suspension cells
Assay type	Quantitative
Sensitivity	= 0.01 nmol/well
Range	0.01 nmol/well - 10 nmol/well
Assay time	0h 30m
Product overview	Alpha Ketoglutarate (alpha KG) Assay Kit provides a simple, sensitive and rapid means for quantifying alpha KG.

In the alpha KG assay protocol, alpha-ketoglutarate is transaminated with the generation of pyruvate, which is used to convert a nearly colorless probe to a colored ($\lambda_{\text{max}} = 570 \text{ nm}$) and fluorescent ($\text{Ex/Em} = 535/587 \text{ nm}$) product.

Alpha Ketoglutarate assay protocol summary:

- add reaction mix to standard and sample wells
- incubate for 30 min
- analyze with a microplate reader

Notes	This product is manufactured by BioVision, an Abcam company and was previously called K677 Alpha-Ketoglutarate Colorimetric/Fluorometric Assay Kit. K677-100 is the same size as the 100 test size of ab83431.
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Platform	Microplate reader
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Properties

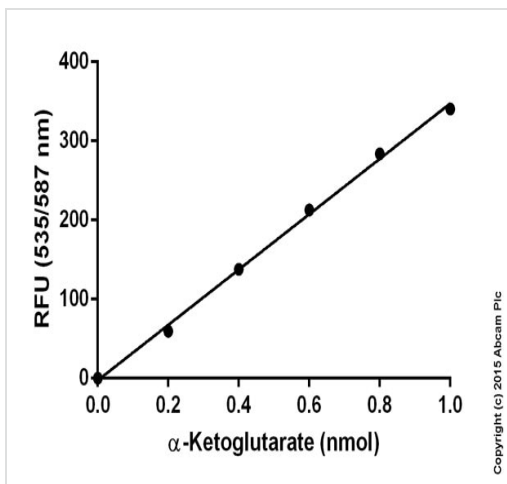
Storage instructions	Store at -20°C. Please refer to protocols.
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Components	100 tests
a-KG Assay Buffer	1 x 25ml
Converter Enzyme II	1 vial
α -KG Standard	1 vial
Development Enzyme Mix I	1 vial
OxiRed Probe	1 x 200 μ l

Relevance

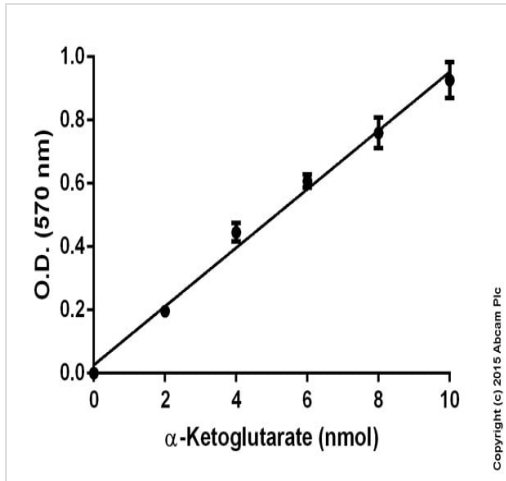
Alpha ketoglutarate (Alpha-KG) is a key intermediate in the Krebs cycle, coming after isocitrate and before succinyl CoA. Anaplerotic reactions replenish the cycle by synthesizing Alpha-KG from transamination of glutamate, or through the action of glutamate dehydrogenase. Alpha-KG is an important nitrogen transporter. Being a key intermediate, it is one of the organic acids measured in newborns as an indicator of inborn errors of metabolism.

Images



Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - Alpha Ketoglutarate Assay Kit (ab83431)



Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - Alpha Ketoglutarate Assay Kit
(ab83431)

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