abcam

Product datasheet

Ascorbic Acid Assay Kit ab65346

6 References 2 Images

Overview

Product name Ascorbic Acid Assay Kit

Detection method Colorimetric/Fluorometric

Sample type Cell culture supernatant, Urine, Other biological fluids, Tissue Extracts

Assay type Quantitative

Range 0.01 nmol/well - 10 nmol/well

Assay time 0h 30m

Product overview Ascorbic Acid Assay Kit ab65346 provides a rapid, simple, and sensitive means of detecting

ascorbic acid in various biological samples.

In the ascorbic acid assay protocol, our proprietary catalyst oxidizes ascorbic acid to produce a product that interacts with the ascorbic acid probe, generating color and fluorescence. Ascorbic acid can be easily determined by either colorimetric (spectrophotometry at $\lambda = 570$ nm) or

fluorometric (Ex/Em = 535/587 nm) methods.

The assay can detect 0.01-10 nmol of ascorbic acid per assay.

Notes This product is manufactured by BioVision, an Abcam company and was previously called K661

Ascorbic Acid Colorimetric/Fluorometric Assay Kit. K661-100 is the same size as the 100 test

size of ab65346.

Ascorbic Acid (Vitamin C) plays an important role in many biological processes. It is a potent anti-oxidant, anti-inflammatory, anti-viral agent, and an immune stimulant and is present is a wide

variety of foods and biological specimens. It is important to be able to monitor ascorbic acid

content in these different samples.

Platform Microplate reader

Properties

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

Components	100 tests
Ascorbic Acid Standard	1 vial

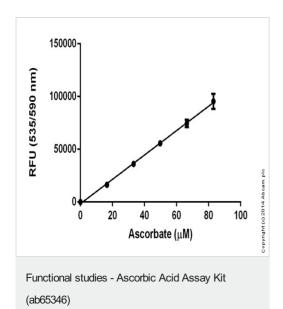
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Components	100 tests
Assay Buffer II	1 x 25ml
Catalyst Reagent	1 x 500µl
Developer Solution V	1 vial
OxiRed Probe	1 x 0.2ml

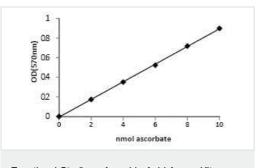
Relevance

Ascorbic Acid $(C_6H_8O_6)$ is an essential nutrient in human diets, and is necessary to maintain connective tissue and bone. The biologically active form of ascorbic acid is vitamic C, a water soluble vitamin which is the L-enantiomer form of ascorbic acid. Humans have lost the ability to synthesize ascorbic acid and must obtain in the diet. Ascorbic acid is an electron donor for enzymes involved in collagen hydroxylation, biosynthesis of carnitine and norepinephrine, tyrosine metabolism and amidatin of peptide hormones. The ability of vitamin C to donate electrons also makes it a potent water-soluble anti-oxidant that readily scavenges free radicals.

Images



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



Ascorbic Acid Standard Curve.

Functional Studies - Ascorbic Acid Assay Kit (ab65346)

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