abcam

Product datasheet

Nickel Assay Kit ab241008

1 Image

Overview

Product name Nickel Assay Kit

Detection method Colorimetric

Product overview Nickel Assay Kit (ab241008) provides a simple method of quantifying Ni²⁺ in a variety of

samples. The assay takes advantage of reaction of Ni^{2+} with mercaptoethanol in borate buffer to form a complex with strong absorbance bands from ~300 to 600 nm. Fe²⁺ and Co²⁺ interfere with the assay, therefore extra steps (as described below) must be taken to subtract the interference in order to determine the correct Nickel concentration in mixed samples. Other ions tested (Mn^{2+} , Cu^{2+} , Zn^{2+}) do not interfere with the assay, presumably no other ionic species are present in high enough concentration to interfere with the reaction. The assay is a simple method of quantifying Ni^{2+} in a variety of samples, which gives a linear range of 2 to 50 nmol nickel containing less than

25 nmol cobalt.

NotesThis product is manufactured by BioVision, an Abcam company and was previously called K510

Nickel Colorimetric Assay Kit. K510-100 is the same size as the 100 test size of ab241008.

Platform Microplate reader

Properties

Storage instructions Store at room temperature. Please refer to protocols.

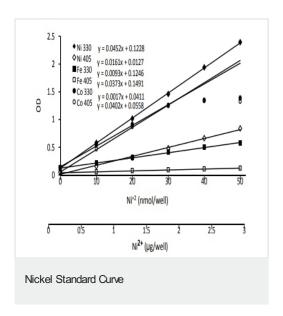
Components	100 tests
Nickel Assay Buffer	1 x 20ml
Nickel Chloride Standard (1.0 μmol)	1 vial
Nickel Reagent	1 x 1ml

Relevance

Nickel is one of four ferromagnetic elements (symbol Ni, at. Num. 28). Several enzymes depend on nickel for activity, including some ureases, carbon monoxide dehydrogenases (methane forming enzymes which reduce CO2 to CH4) and some hydrogenases which allow the production or removal of H2. Most of these activities are found in the archaebacteria. Nickel forms complexes with sulfhydryl compounds with significant absorbance in the UV/visible region in the presence of other ions.

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Images



Assays were performed following the kit protocol.

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