abcam

Product datasheet

Enolase Assay Kit ab241024

1 References 3 Images

Overview

Product name Enolase Assay Kit

Detection methodColorimetric/Fluorometric

Sample type Cell culture supernatant, Tissue, Adherent cells, Suspension cells

Product overview In the Enolase Assay Kit (ab241024) enolase catalyzes the conversion of 2-phosphoglycerate to

phosphoenolpyruvate, which is subsequently used to generate an intermediate product. The intermediate product stoichiometrically reacts with the probe to generate color (OD 570 nm) or

fluorescence (Ex/Em = 535/587 nm).

This simple & sensitive assay Kit can detect enolase activity less than 0.04 mU in a variety of

samples.

Notes This product is manufactured by BioVision, an Abcam company and was previously called K691

Enolase Activity Colorimetric/Fluorometric Assay Kit. K691-100 is the same size as the 100 test

size of ab241024.

Properties

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

Components	100 tests
2-Phosphoglycerate	1 vial
Assay Buffer IV	1 x 25ml
Developer V	1 vial
Enolase Converter Mix	1 vial
Enolase Positive Control	1 vial
H2O2 Standard	1 x 0.1ml
OxiRed Probe	1 x 0.2ml

Function

Multifunctional enzyme that, as well as its role in glycolysis, plays a part in various processes such as growth control, hypoxia tolerance and allergic responses. May also function in the intravascular and pericellular fibrinolytic system due to its ability to serve as a receptor and activator of plasminogen on the cell surface of several cell-types such as leukocytes and neurons. Stimulates immunoglobulin production.

MBP1 binds to the myc promoter and acts as a transcriptional repressor. May be a tumor suppressor.

Tissue specificity

The alpha/alpha homodimer is expressed in embryo and in most adult tissues. The alpha/beta heterodimer and the beta/beta homodimer are found in striated muscle, and the alpha/gamma heterodimer and the gamma/gamma homodimer in neurons.

Pathway

Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 4/5.

Sequence similarities

Belongs to the enolase family.

Developmental stage

During ontogenesis, there is a transition from the alpha/alpha homodimer to the alpha/beta heterodimer in striated muscle cells, and to the alpha/gamma heterodimer in nerve cells.

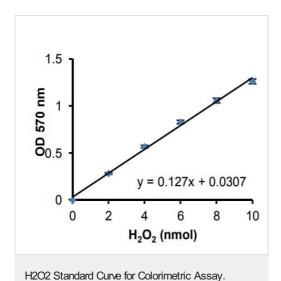
Post-translational modifications

ISGylated.

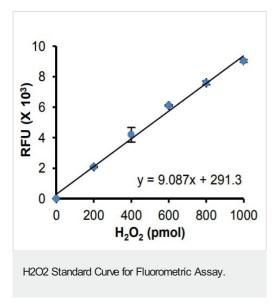
Cellular localization

Nucleus and Cytoplasm. Cell membrane. Cytoplasm > myofibril > sarcomere > M line. Can translocate to the plasma membrane in either the homodimeric (alpha/alpha) or heterodimeric (alpha/gamma) form. ENO1 is localized to the M line.

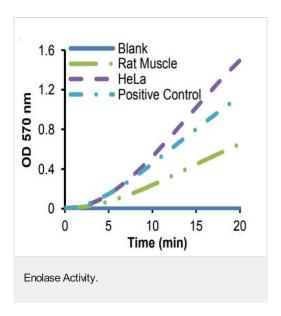
Images



H₂O₂ Standard Curve for Colorimetric Assay.



 H_2O_2 Standard Curve for Fluorometric Assay.



Enolase Activity in rat muscle lysate (1 μ g), HeLa lysate (5 μ g) and positive control. Assays were performed following the kit protocol.

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