Phosphoenolpyruvate Carboxykinase 1 Inhibitor Screening Kit for studying potential inhibitors of Human PEPCK1

MILPITAS, CA, UNITED STATES, September 12, 2019 / EINPresswire.com/ -- Phosphoenolpyruvate Carboxykinase (PEPCK, EC 4.1.1.32) is an enzyme, which belongs to the lyase family. In the presence of GTP, it catalyzes the reversible conversion of oxaloacetate (OAA) into phosphoenolpyruvate (PEP), GDP and CO2. In humans, two isoforms of PEPCK are found: cytosolic form (PEPCK-C, PEPCK1 or PCK1) and mitochondrial form (PEPCK-M). PEPCK1 is a rate-controlling step in gluconeogenesis and a key gluconeogenic enzyme in liver and kidney. Recent studies have shown that overexpressing of PEPCK1 in liver leads to excessive glucose production and type II diabetic phenotype in mice. Therefore, identifying and screening PEPCK1 inhibitors is a useful strategy for the treatment of type II diabetes and obesity.

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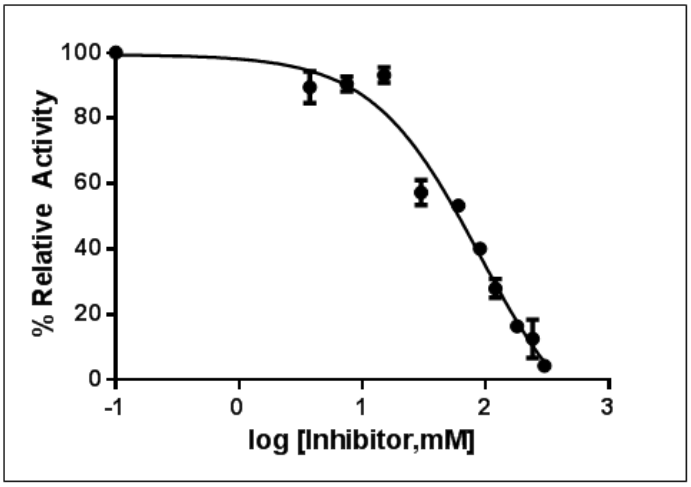

Figure: Inhibition of Human PEPCK1 activity by PEPCK1 Inhibitor (IC50 = 90 mM). Assay was performed following the kit protocol.

PEPCK1 inhibitor screening kit K2012 protocol

In BioVision's Human Phosphoenolpyruvate Carboxykinase 1 Inhibitor Screening Kit, PEPCK1 is coupled with a set of enzymes that covert PEP and carbonate into a series of intermediates and hydrogen peroxide, which in turn reacts with a probe thereby generating a colorimetric signal (OD 570 nm). In the presence of PEPCK1 Inhibitor,the reaction is impeded. A PEPCK1 Inhibitor Control is included to compare the efficacy of the sample inhibitors. The assay is highthroughput adaptable and can be completed in less than 1 hr.

Figure: Inhibition of Human PEPCK1 activity by PEPCK1 Inhibitor (IC50 = 90 mM). Assay was performed following the kit K2012 protocol.

For more information on this assay kit, visit: https://www.biovision.com/phosphoenolpyruvate-carboxykinase-1-inhibitor-screening-kit.html

For complete list of our product offerings, visit: www.biovision.com.

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