CREATIVE BIOMART®
Assay Kit

2-Deoxyglucose (2DG) Uptake Measurement Kit

Product Information

Cat.No.	Kit-0001

Product Overview

Direct measurement of 2DG6P without the use of radioisotope.

Description

Measurement of 2-deoxyglucose (2DG) uptake in tissues and cells is a reliable approach with which to estimate glucose uptake and thereby to explore the regulation of glucose metabolism and mechanism of insulin resistance. Radioisotope-labeled 2DG is usually used for the measurement of 2DG uptake both in vivo and in vitro. However the radioisotope (RI) method is required a specialized facility for RI in strict limitation and cannot be handled in ordinal laboratories. Furthermore, radioactive 2DG administered into cultured cells remains in the extracellular space, and therefore the results must be corrected by separating the extracellular 2DG and intracellular 2DG/2DG-6-phosphate (2DG6P) in the cells. This kit is based on theenzymatic method for the direct measurement of 2DG6P amount without any use of radioisotope materials (Saito K and Minokoshi Y, et al. Analytical Biochem 412: 9-17, 2011).

Storage

-20°C

Kit Components

1. Solution A: 3,400 ul x 1 tube;2. Solution B (Acid solution): 1,000 ul x 1 tube;3. Solution C (Acid neutralizing solution): 1,000 ul x 1 tube;4. Solution D: 1,600 ul x 1 tube;5. Solution E (Alkali solution): 1,000 ul x 1 tube;6. Solution F (Alkali Neutralizing solution): 1,000 ul x 1 tube;7. Solution G: 2,000 ul x 1 tube;8. 1 mM 2DG6P solution: 500 ul x 1 tube;9. Sample diluent buffer Concentrate (100-fold concentrated solution): 3 ml x 1 tube;10. Substrate buffer: 11 ml x 1 vial;11. DTNB Substrate (powder): 5 vials;12. Low G6PDH: 25 ul x 1 tube;13. High G6PDH: 250 ul x 1 tube;14. GR: 20 ul x 1 tube

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