

Mitochondrial glycerol-3-phosphate dehydrogenase (mGPD)

Human, Recombinant, *E. coli*

Cat. No.: RCP9300

Size: 10µg

Synonym: Glycerol-3-Phosphate Dehydrogenase 2, GPD2, Glycerophosphate Dehydrogenase-2 Ca(2+) - Responsive Mitochondrial FAD-Linked, Mitochondrial GPD, GPDM, GPD-M, GPDH-M, mtGPD, GDH2.

Description: Mitochondrial glycerol-3-phosphate dehydrogenase (mGPD) is a Ca²⁺-sensitive, FAD-binding protein, located on the outer surface of the inner mitochondrial membrane. mGPD catalyses the oxidation of glycerol-3-phosphate to dihydroxyacetone phosphate (DHAP) with concomitant reduction of the enzyme-bound FAD. Two isoforms have been described for mGPD. Isoform 1 comprises 727aa residues, whereas isoform 2 lacks 126aa residues of the N-terminus. Deficiency of mGPD appears to contribute to the impairment of glucose-stimulated insulin release in several animal models of non-insulin dependent diabetes mellitus.

RANDOX recombinant mGPD comprises a 558 amino acid fragment (43-600) corresponding to the GlpA domain fragment of the mature mGPD protein and is expressed in *E. coli* with an amino-terminal hexahistidine tag. This product is for research use only and is not intended for diagnostic or therapeutic use.

Form: Liquid.
Supplied in 1x Laemmli Buffer (25mM Tris-HCl pH6.8, 50mM DTT, 1% (w/v) SDS, 0.1% (w/v) Bromophenol Blue, 2.5% Glycerol).

Purity: Single band on Western blot.

References: Brown, L.J. *et al.*, *Gene* 1996 **172 (2)** : 309-12.

Ferrer J. *et al.*, *Diabetes* 1996 **45 (2)** : 262-6.