PCK2 phosphorylates OA to yield PEP

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references

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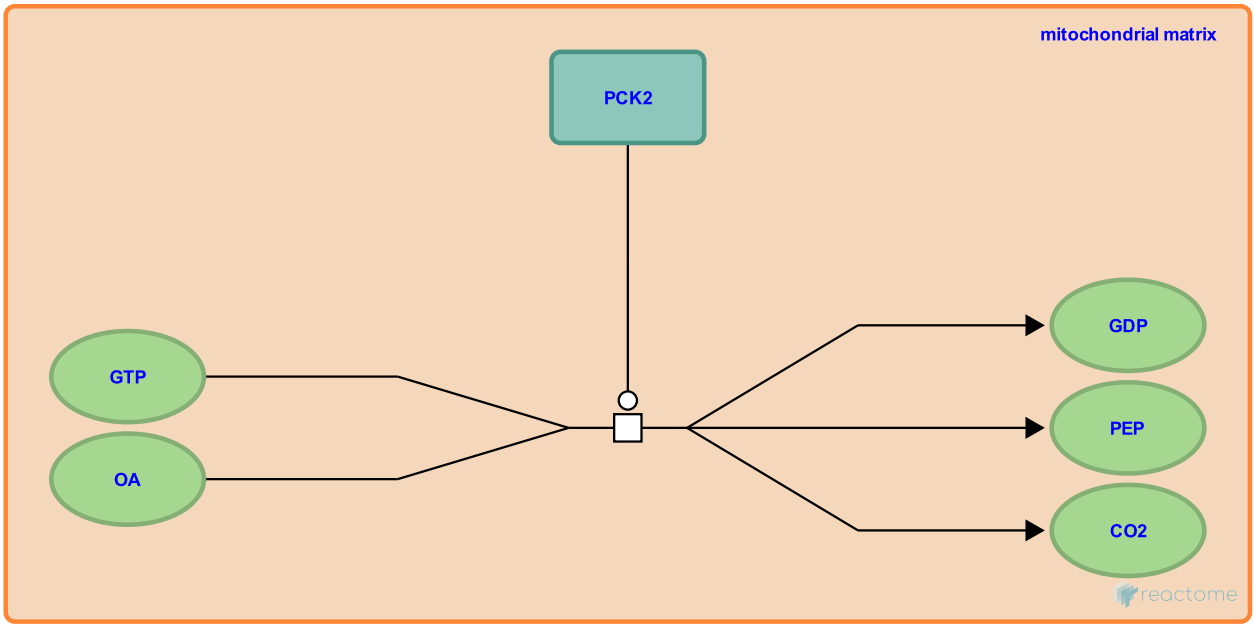
Stable identifier: R-HSA-372819

Type: transition

Compartments: mitochondrial matrix



PCK2 (phosphoenolcarboxykinase), located in the mitochondrial matrix, catalyzes the physiologically irreversible reaction of oxaloacetate (OA) and GTP to form phosphoenolpyruvate (PEP), GDP, and CO2 (Modaressi et al. 1996, 1998).

Literature references

Christ, B., Heise, T., Modaressi, S., Jungermann, K., Bratke, J., Zahn, S. (1996). Molecular cloning, sequencing and expression of the cDNA of the mitochondrial form of phosphoenolpyruvate carboxykinase from human liver. *Biochem J, 315*, 807-14. ↗

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Editions

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