oxaloacetate + GTP => phosphoenolpyruvate + GDP + CO2 [mitochondrial matrix]

D'Eustachio, P., Harris, RA.
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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references


oxaloacetate + GTP => phosphoenolpyruvate + GDP + CO2 [mitochondrial matrix]

**Stable identifier:** R-HSA-372819

**Type:** transition

**Compartments:** mitochondrial matrix

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

**Literature references**


**Editions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Author/Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09-10</td>
<td>Reviewed</td>
<td>Harris, RA.</td>
</tr>
<tr>
<td>2008-09-13</td>
<td>Authored, Edited</td>
<td>D'Eustachio, P.</td>
</tr>
</tbody>
</table>