LDHAL6B reduces PYR to LACT

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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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Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

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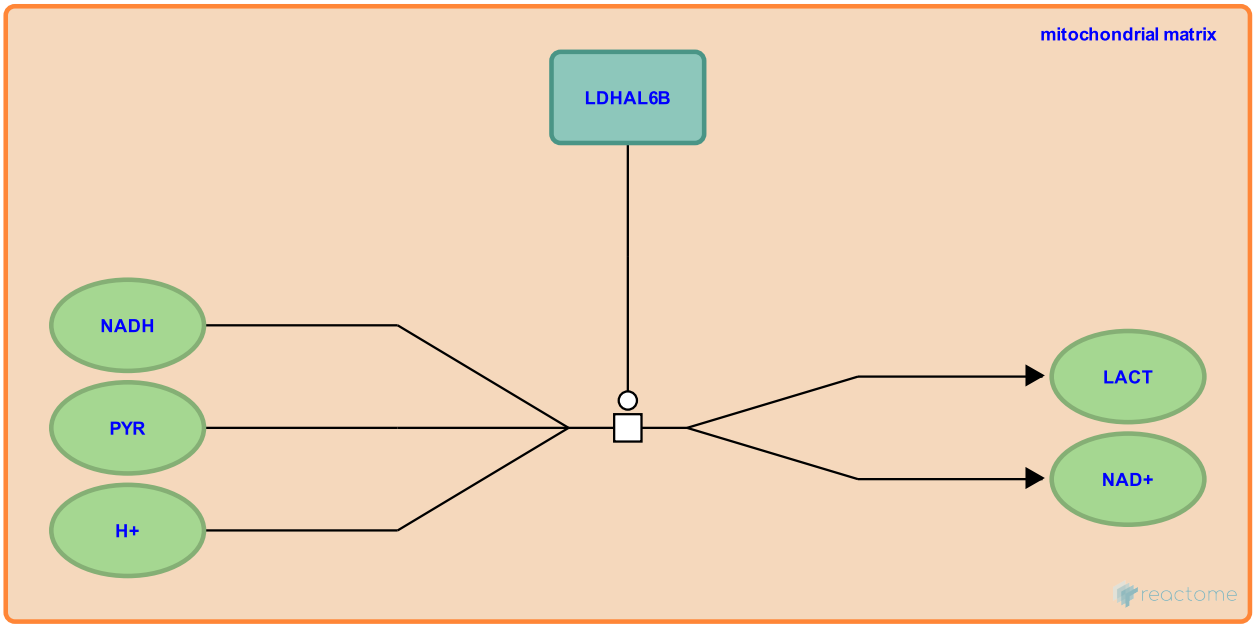
Stable identifier: R-HSA-6807826

Type: transition

Compartments: mitochondrial matrix



LDHAL6B (L-lactate dehydrogenase A-like 6B) catalyzes the reaction of PYR (pyruvate) and NADH + H+ to form LACT (lactate) and NAD+. The LDHAL6B protein is the inferred product of an open reading frame transcribed in the testis (Wang et al. 2005). Its mitochondrial localization is inferred from the presence of a mitochondrial localization sequence at its amino terminus (Holmes and Goldberg 2009). A physiological role for lactate formation from the abundant pyruvate and NADH expected in rapidly respiring mitochondria is not straightforward to imagine, however.

Literature references

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Wang, H., Zhou, Z., Lu, L., Xu, Z., Sha, J. (2005). Cloning and characterization of a novel intronless lactate dehydrogenase gene in human testis. *Int. J. Mol. Med., 15*, 949-53. ↗

Editions

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