TXB2 is converted to 11dh-TXB2 by TXDH

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

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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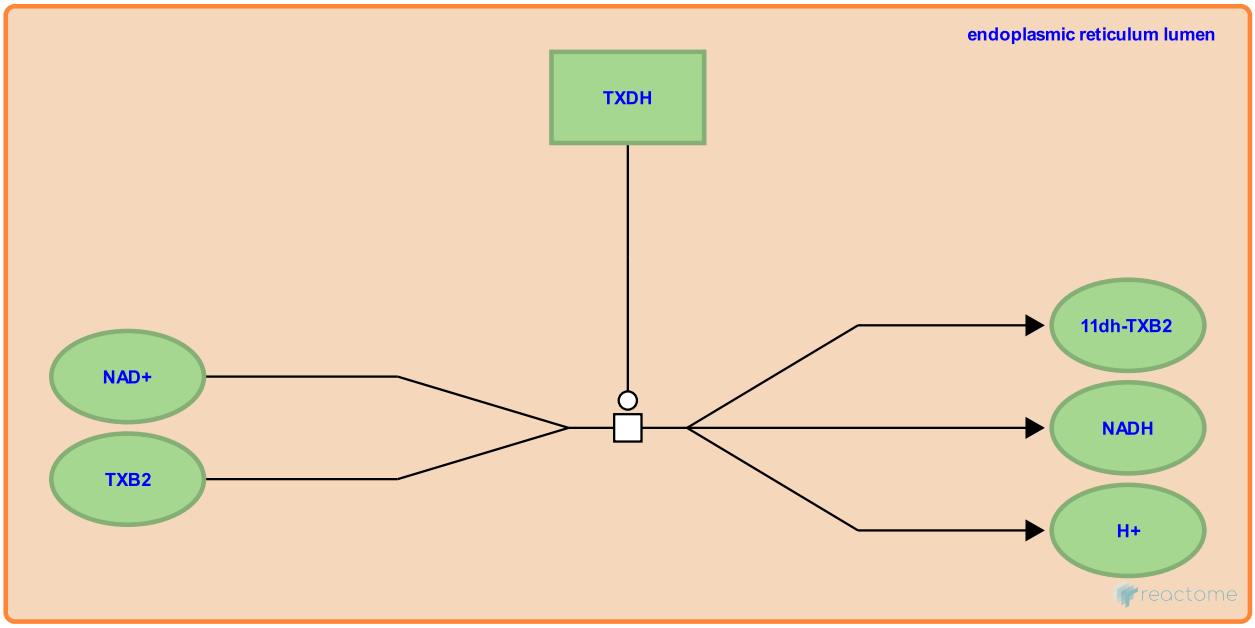
Stable identifier: R-HSA-2161732

Type: transition

Compartments: endoplasmic reticulum lumen



Thromboxane B2 (TXB2) undergoes dehydrogenation at C-11 to form 11-dehydro-thromboxane B2 (11dh-TXB2). The enzyme responsible for catalysis has been termed 11-dehydroxythromboxane B2 dehydrogenase (TXDH) (Kumlin & Granström 1986, Catella et al. 1986, Westlund et al. 1994). The human TXDH isoform has not been cloned but 11dh-TXB2 has been detected in various experiments.

Literature references

Kumlin, M., Granström, E. (1986). Radioimmunoassay for 11-dehydro-TXB2: a method for monitoring thromboxane production in vivo. *Prostaglandins, 32*, 741-67. ↗

Jörnvall, H., Cederlund, E., Fylling, AC., Westlund, P. (1994). 11-Hydroxythromboxane B2 dehydrogenase is identical to cytosolic aldehyde dehydrogenase. *FEBS Lett, 345*, 99-103. ↗

Healy, D., Lawson, JA., FitzGerald, GA., Catella, F. (1986). 11-Dehydrothromboxane B2: a quantitative index of thromboxane A2 formation in the human circulation. *Proc Natl Acad Sci U S A, 83*, 5861-5. ↗

Editions

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