MID1IP1 binds THRSP

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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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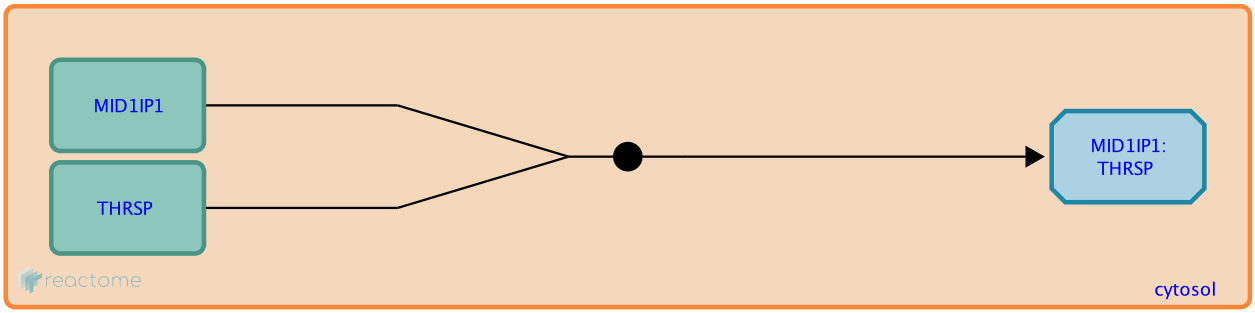
Stable identifier: R-HSA-8866941

Type: binding

Compartments: cytosol



Mid1-interacting protein 1 (MID1IP1, aka MIG12, SPOT14R, S14R) plays a role in the regulation of lipogenesis in the liver. It is rapidly upregulated by processes that induce lipogenesis (enhanced glucose metabolism, thyroid hormone administration) (Tsatsos et al. 2008). MID1IP1 forms a heterodimer with thyroid hormone-inducible hepatic protein (THRSP, aka SPOT14, S14), proposed to play the same role in lipogenesis as MID1IP1 (Aipoalani et al. 2010). This complex can polymerise acetyl-CoA carboxylases 1 and 2 (ACACA and B), the first committed enzymes in fatty acid (FA) synthesis. Polymerisation enhances ACACA and ACACB enzyme activities (Kim et al. 2010, Park et al. 2013).

Literature references

Park, S., Hwang, IW., Makishima, Y., Perales-Clemente, E., Kato, T., Niederländer, NJ. et al. (2013). Spot14/Mig12 heterocomplex sequesters polymerization and restrains catalytic function of human acetyl-CoA carboxylase 2. *J. Mol. Recognit., 26*, 679-88. ↗

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Editions

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