AGT(34-41) binds to AGTR2

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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. ↗

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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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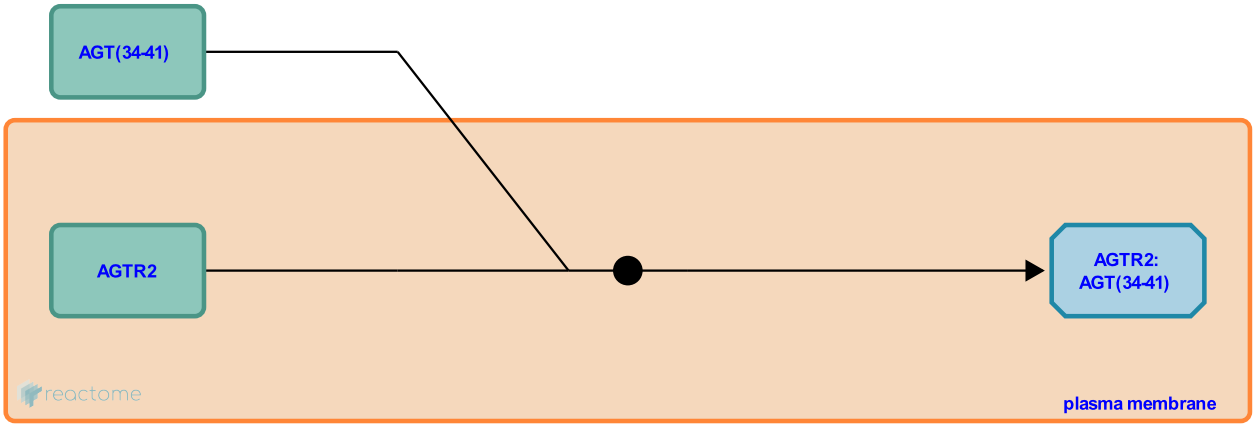
Stable identifier: R-HSA-9615348

Type: binding

Compartments: extracellular region, plasma membrane



The cardiovascular and other actions of the vasoconstricting peptide angiotensin II are mediated by the type 1 and type 2 angiotensin II receptors (AT1 and AT2), which are seven transmembrane glycoproteins with 30% sequence similarity. AT1 receptors (Bergsma DJ et al, 1992) couple to G(q/11), and signal through phospholipases A, C, D, inositol phosphates, calcium channels, and a variety of serine/threonine and tyrosine kinases. The AT2 receptor (Tsuzuki S et al, 1994) is expressed mainly during fetal development. It is much less abundant in adult tissues and is up-regulated in pathological conditions. Its signaling pathways include serine and tyrosine phosphatases, phospholipase A2, nitric oxide, and cyclic guanosine monophosphate. The AT2 receptor counteracts several of the growth responses initiated by the AT1 and growth factor receptors.

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Ichiki, T., Tsuzuki, S., Kitami, Y., Guo, DF., Shirai, H., Nakakubo, H. et al. (1994). Molecular cloning and expression of the gene encoding human angiotensin II type 2 receptor. *Biochem Biophys Res Commun, 200*, 1449-54.

Editions

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