HSPG2 binds FGF2(10-155), Fibronectn matrix, Transthyretin tetramer, PDGFA homodimer, PDGFB homodimer

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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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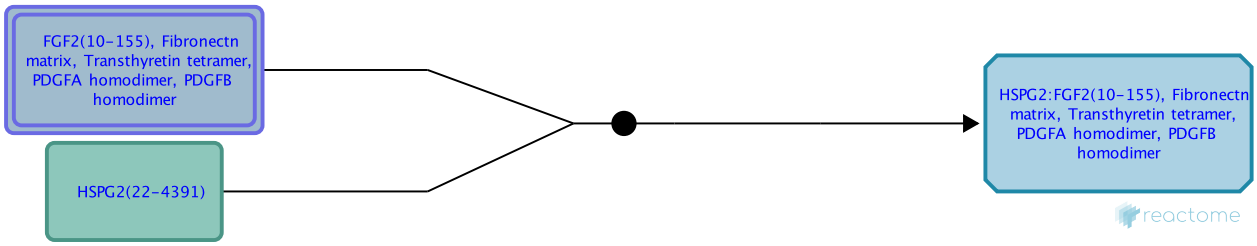
Stable identifier: R-HSA-2396337

Type: binding

Compartments: extracellular region



Perlecan (HSPG2) is a modular proteoglycan primarily located in the basement membranes of vascular tissues. It is involved in several developmental processes, both during embryogenesis and in human diseases such as cancer and diabetes (Iozzo et al. 1994). HSPG2 can self-aggregate into dimeric or multimeric forms (Yurchenco et al. 1987) and is involved in heterotypic interactions with numerous extracellular macromolecules (Whitelock et al. 2008, Perlecan entry in MatrixDB). HSPG2's GAG chains mediate interactions with fibroblast growth factor-2 (Vigny et al. 1988, Knox et al. 2002), and nidogens (Entactins, represented elsewhere). The core protein binds fibronectin (Isemura et al. 1987, Heremans et al. 1990, Vlodavsky et al. 1991), transthyretin (Smeland et al. 1997) and platelet-derived growth factor A and B homodimers (Göhring et al. 1998).

Literature references

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Editions

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