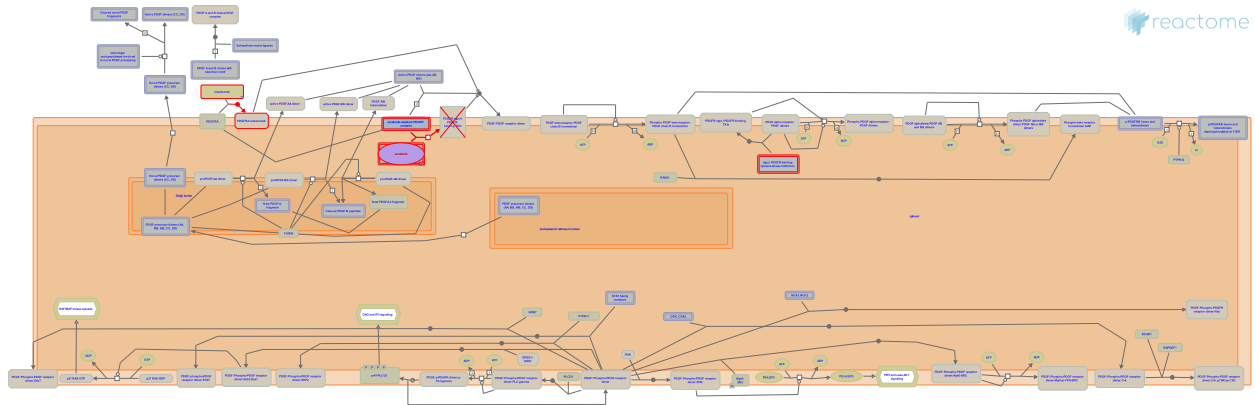


Sorafenib-resistant PDGFR mutants



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This is just an excerpt of a full-length report for this pathway. To access the complete report, please download it at the [Reactome Textbook](https://reactome.org/textbook).

06/05/2024

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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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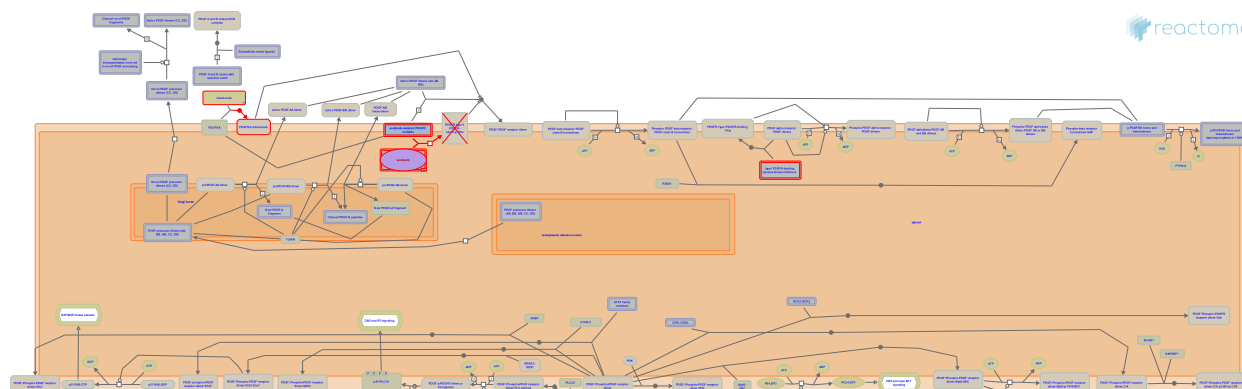
Reactome database release: 88

This document contains 1 pathway and 1 reaction ([see Table of Contents](#))

Sorafenib-resistant PDGFR mutants [↗](#)

Stable identifier: R-HSA-9674404

Diseases: cancer



Sorafenib is a type II tyrosine kinase inhibitor that is approved for use in hepatocellular and renal cell carcinoma, and that is often used as a second-line treatment for imatinib-resistant tumors. Despite its initial efficacy, resistance to sorafenib often develops (reviewed in Molina-Ruiz et al, 2017).

Literature references

- Barnett, CM., Corless, CL., Heinrich, MC. (2011). Gastrointestinal stromal tumours: origin and molecular oncology. *Nat. Rev. Cancer*, 11, 865-78. [↗](#)
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Editions

2020-02-06	Reviewed	Ip, CKM.
2020-02-25	Authored, Edited	Rothfels, K.

Sorafenib-resistant PDGFR mutants don't bind sorafenib ↗

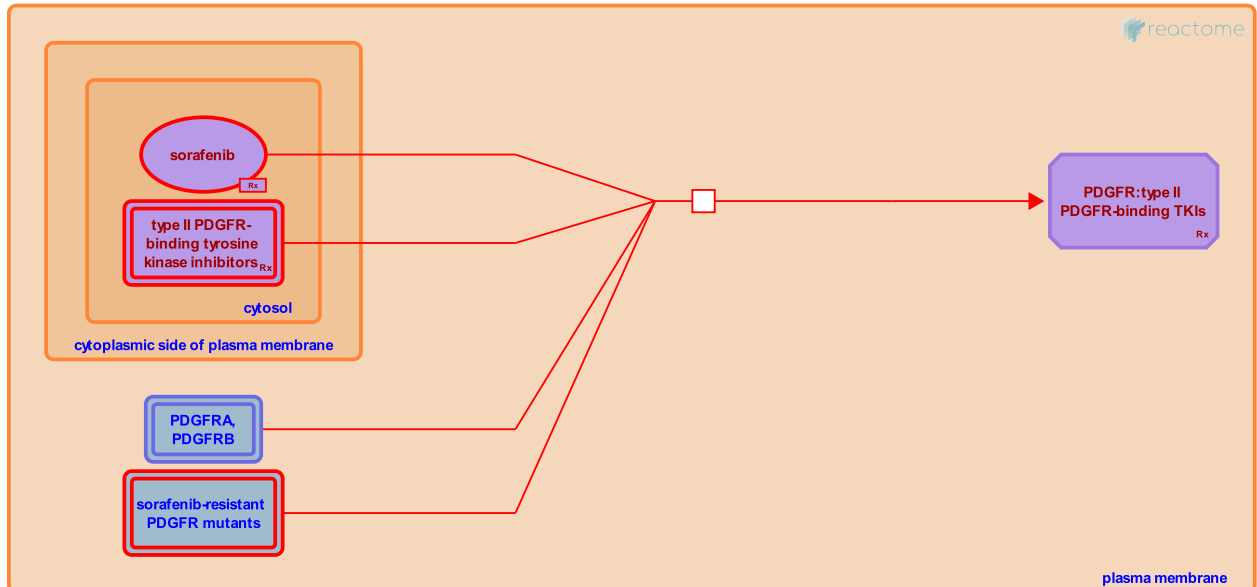
Location: [Sorafenib-resistant PDGFR mutants](#)

Stable identifier: R-HSA-9674414

Type: transition

Compartments: plasma membrane, cytosol

Diseases: cancer



Sorafenib has broader effectiveness against many imatinib-resistant PDGFR mutations that sunitinib, however both D842V and S601P show resistance to inhibition by sorafenib as well (Heinrich et al, 2012; Salemi et al, 2009; reviewed in Corless et al, 2011).

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Editions

2020-02-06	Reviewed	Ip, CKM.
2020-02-25	Authored, Edited	Rothfels, K.

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