Sorafenib-resistant PDGFR mutants

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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


Reactome database release: 78

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**


**Editions**

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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).

Literature references


Editions

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