cretolanib-resistant FLT3 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.

18/12/2022
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


Reactome database release: 83

This document contains 1 pathway and 1 reaction (see Table of Contents)
Crenolanib-resistant FLT3 mutants

**Stable identifier:** R-HSA-9702581

**Diseases:** cancer

Crenolanib is a second-generation type I tyrosine kinase inhibitor with activity against FLT3 (reviewed in Daver et al, 2019; Staudt et al, 2018; Larrosa-Garcia and Bauer, 2017). This pathway describes FLT3 mutants that are resistant to crenolanib-mediated inhibition.

**Literature references**


**Editions**

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Crenolanib-resistant FLT3 mutants don't bind crenolanib

Location: crenolanib-resistant FLT3 mutants

Stable identifier: R-HSA-9702583

Type: transition

Compartments: plasma membrane

Diseases: cancer

Crenolanib is a second-generation, type I tyrosine kinase inhibitor with activity against FLT3 (reviewed in Daver et al, 2019; Lim et al, 2017). It is currently in phase III clinical trials for treatment of FLT3-positive AML. The following FLT3 mutants are resistant to crenolanib-mediated inhibition:

- FLT3 F691L (Galanis et al, 2014)
- FLT3 D835H (Galanis et al, 2014)

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