FLT3 Signaling

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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: 79

This document contains 4 pathways and 24 reactions (see Table of Contents)
FLT3 Signaling

Stable identifier: R-HSA-9607240

Compartments: cytosol, extracellular region, plasma membrane

Feline McDonough Sarcoma-like tyrosine kinase (FLT3) (also known as FLK2 (fetal liver tyrosine kinase 2), STK-1 (stem cell tyrosine kinase 1) or CD135) is a member of the class III receptor tyrosine kinase family involved in the differentiation, proliferation and survival of hematopoietic progenitor cells and of dendritic cells. Upon FLT3 ligand (FL) binding, the receptor forms dimers and is phosphorylated. Consequently, adapter and signaling molecules bind with the active receptor and trigger the activation of various pathways downstream including PI3K/Akt and MAPK cascades (Grafone T et al. 2012).

Literature references


Editions

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FLT3LG dimer binds FLT3

Location: FLT3 Signaling

Stable identifier: R-HSA-6786789