MET activates RAS signaling

Birchmeier, W., Heynen, G., Orlic-Milacic, M.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

The contents of this document may be freely copied and distributed in any media, provided the authors, plus the institutions, are credited, as stated under the terms of Creative Commons Attribution 4.0 International (CC BY 4.0) License. For more information see our license.

07/05/2020
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: 72

This document contains 1 pathway and 10 reactions (see Table of Contents)

PTPN11 (SHP2) may contribute to activation of RAS signaling downstream of MET (Schaeper et al. 2000, Furcht et al. 2014).

Sustained activation of MAPK1 (ERK2) and MAPK3 (ERK1) downstream of MET-activated RAS may require MET endocytosis and signaling from endosomes (Peschard et al. 2001, Hammond et al. 2001, Petrelli et al. 2002, Kermorgant and Parker 2008).

Binding of MET to MUC20 or RANBP10 interferes with RAS activation (Higuchi et al. 2004, Wang et al. 2004).

Literature references


**Editions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Author/Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-06-14</td>
<td>Authored, Edited</td>
<td>Orlíc-Milacic, M.</td>
</tr>
<tr>
<td>2016-07-11</td>
<td>Reviewed</td>
<td>Birchmeier, W., Heynen, G.</td>
</tr>
</tbody>
</table>
Activated MET recruits GRB2-1:SOS1

**Location:** MET activates RAS signaling

**Stable identifier:** R-HSA-8851804