reactome

AP-1 stimulates transcription of IGFBP7

D'Eustachio, P., Matthews, L., Orlic-Milacic, M., Samarajiwa, S.

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

21/09/2019

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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Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968. ↗

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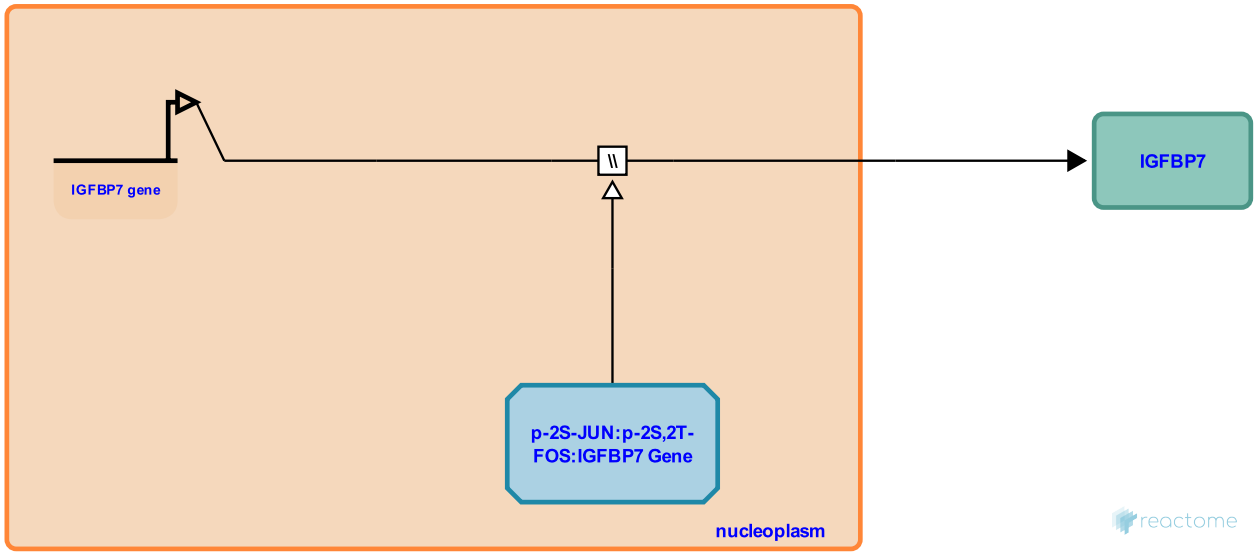
Stable identifier: R-HSA-3797202

Type: omitted

Compartments: nucleoplasm, extracellular region



FOS:JUN (AP-1) transcription factor stimulates the transcription of IGFBP7 gene. IGFBP7 is a component of the senescence-associated secretory phenotype (SASP) and is secreted by senescent melanocytes in which the senescence is induced by the expression of oncogenic BRAF V600E. The BRAF V600E-mediated induction of IGFBP7 expression is AP-1 dependent. The conditioned medium harvested from BRAF V600E senescent melanocytes is able to inhibit cellular proliferation and induce senescence of naive melanocytes only when IGFBP7 is present in the medium (Wajapeyee et al. 2008).

Literature references

Wajapeyee, N., Serra, RW., Zhu, X., Mahalingam, M., Green, MR. (2008). Oncogenic BRAF induces senescence and apoptosis through pathways mediated by the secreted protein IGFBP7. *Cell, 132*, 363-74.

Editions

2013-07-15	Edited	Matthews, L., D'Eustachio, P.
2013-07-15	Authored	Orlic-Milacic, M.
2013-09-03	Reviewed	Samarajiwa, S.