

Name of Journal: *World Journal of Stem Cells*

Manuscript NO: 58167

Manuscript type: REVIEW

MIRK/DYRK1B implication in stem/cancer stem cells biology

Kokkorakis N. and Gaitanou M. MIRK/DYRK1B in stem cells biology

Abstract

DYRK1B kinase (Dual-specificity tyrosine phosphorylation-regulated kinase), also known as MIRK (Minibrain-related kinase) is one of the best functionally studied member of the DYRK kinases family. DYRKs comprise a family of protein kinases which are emerging modulators of signal transduction pathways, cell proliferation and differentiation, survival, and cell motility. DYRKs were found to participate in several signaling pathways critical for development and cell homeostasis. In this review, we

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Mirk/Dyrk1B Maintains the Viability of ... - Cancer Research

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Apr 15, 2009 · The **kinase Mirk/dyrk1B** mediated the clonogenic growth of **pancreatic cancer cells** in earlier studies. It is now shown that **Mirk levels** increased 7-fold in SU86.86 **pancreatic cancer cells** when over a third of the **cells** were accumulated in a quiescent G 0 state, defined by Hoechst/Pyronin Y staining.

Cited by: 94

Author: Xiaobing Deng, Daina Z. Ewton, Eileen Fried...

Publish Year: 2009

The Kinase Mirk/Dyrk1B Mediates Cell ... - Cancer Research

<https://cancerres.aacrjournals.org/content/66/8/4149> ▼

Apr 15, 2006 · The serine/threonine kinase **Mirk/Dyrk1B** has been shown to be antiapoptotic in rhabdomyosarcomas. We have now investigated whether Mirk might mediate survival in another **cancer** in which Mirk is widely expressed, pancreatic ductal adenocarcinoma. Mirk was an active kinase in each pancreatic **cancer cell** line where it was detected.

Cited by: 71

Author: Xiaobing Deng, Daina Z. Ewton, Sheena Li, ...

Publish Year: 2006

Mirk kinase inhibition targets ovarian cancer ascites

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4104763>

Mar 14, 2014 · The **Mirk/dyrk1B** kinase gene is localized to the 660 kb core region of the 19q13 amplicon found in a subset of pancreatic cancers and ovarian cancers ,, and is amplified in various **cancer cell** lines, including two widely used **cell** lines, OVCAR3 ovarian **cancer cells** and Panc1 pancreatic **cancer cells** . The current study was performed to determine ...

Cited by: 11

Author: Xiaobing Deng, Jing Hu, Mary J. Cunningha...



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<https://link.springer.com/article/10.1385/CBB:45:3:303> ▾

Jul 01, 2006 · **Minibrain-related** kinase (**Mirk**)/dual-specificity tyrosine-regulated kinase (**Dyrk**)**1B** is one of the best functionally characterized members of the **Dyrk/Minibrain** family of dual-specificity kinases. **Dyrk family kinases** are highly conserved mediators of growth control and differentiation.

Cited by: 65

Author: Stephen E. Mercer, Eileen Friedman

Publish Year: 2006

[Frontiers | The Biology and Therapeutic Implications of ...](#)

<https://www.frontiersin.org/articles/10.3389/fonc.2018.00072> ▾**Introduction**

Tumor and Metastatic Dormancy

Metastatic Niche in Tumor D.



Metastasis is a continuous biological process consists of an orderly sequence of basic steps including local invasion, intravasation, extravasation, and colonization. These classical events of metastasis help in understanding the complex array of biological properties that are necessary for the progression of primary malignancy to overt metastasis (1, 2). It involves dissemination of malignant cells from the primary tumor to the distant sites and their proliferation at metastatic sites, which leads to failure of vital organs (1, 2). ...

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Cited by: 16

Author: Amit S. Yadav, Poonam R. Pandey, Rame...

Publish Year: 2018

[Mirk/Dyrk 1B, Cell Biochemistry and Biophysics | 10.1385 ...](#)

<https://www.deepdyve.com/lp/springer-journals/mirk-dyrk-1b-1juazqQTNE> ▾

Feb 22, 2007 · **Minibrain-related** kinase (**Mirk**)/dual-specificity tyrosine-regulated kinase (**Dyrk**)**1B** is one of the best functionally characterized members of the **Dyrk/Minibrain** family of dual-specificity kinases. **Dyrk family kinases** are highly conserved mediators of growth control and differentiation.