

首页>>文献首页>>文献正文

### Interaction between Differentiating Cell- and Niche-Derived Signals in Hematopoietic Progenitor Maintenance

renchunxiao 添加于 2012-1-4 15:51:19 429次阅读 | 0次推荐 | 0条评论

Maintenance of a hematopoietic progenitor population requires extensive interaction with cells within a microenvironment or niche. In the Drosophila hematopoietic organ, niche-derived Hedgehog signaling maintains the progenitor population. Here, we show that the hematopoietic progenitors also require a signal mediated by Adenosine deaminase growth factor A (Adgf-A) arising from differentiating cells that regulates extracellular levels of adenosine. The adenosine signal opposes the effects of Hedgehog signaling within the hematopoietic progenitor cells and the magnitude of the adenosine signal is kept in check by the level of Adgf-A secreted from differentiating cells. Our findings reveal signals arising from differentiating cells that are required for maintaining progenitor cell quiescence and that function with the niche-derived signal in maintaining the progenitor state. Similar homeostatic mechanisms are likely to be utilized in other systems that maintain relatively large numbers of progenitors that are not all in direct contact with the cells of the niche.

作者: Bama Charan Mondal, Tina Mukherjee, Lolitika Mandal, Cory J. Evans, Sergey A. Sinenko, Julian A. Martinez-Agosto, Utpal Banerjee

期刊名称: cell

期卷页: 第卷 第期 页

学科领域: 生命科学 » 细胞生物学 » 细胞、亚细胞结构与功能

添加人是否为作者: 否

原文链接: http://www.cell.com/abstract/S0092-8674(11)01435-8

DOI:

ISBN:

关键词:

备注:

文献笔记

收藏 求全文 推荐

导出选项: Endnote 导出

评论 (0 条评论)

Page 1 of 1

<<< [1] >>>

发表评论:

Text input field for comments

验证码: [input field]

发表评论

#### 相关文献

- The aged niche disrupts muscle stem ...
Dioxin (TCDD) Induces Epigenetic Tra...
Augmented Macrophage Differentiation ...
Model System for Plant Cell Biology:...
Surface Functionalization of Nanopar...
Acquisition of MHC:Peptide Complexes...
Stability and Function of Secondary ...
Tomographic Reconstruction of Neopte...
Specific DNA-RNA Hybrid Recognition ...
Thyroid hormone determines the start...

谁收藏了该文献

renchunxiao

谁请求该文献全文

谁推荐了该文献