

论著

## 外周血单个核细胞诱导培养破骨细胞

黄红铭, 姜华, 张慧, 侯健

第二军医大学附属长征医院血液科, 上海 200003

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摘要

目的: 从人外周血单个核细胞诱导培养获得高产量高纯度破骨细胞, 为破骨细胞的体外研究提供丰富的细胞来源。方法: 从外周血分离单个核细胞贴壁培养, 采用0.25%胰蛋白酶 / 0.02%EDTA联合消化, 纯化后以RANKL和M-CSF加以诱导(A组), 并与未经消化之传统方法(B组)比较。结果: 与B组相比, A组可获得(1 426±204)个破骨细胞(P<0.05), 0.25%胰蛋白酶 / 0.02%EDTA联合消化可使破骨细胞纯化率达90%。诱导生成的破骨细胞TRAP染色阳性, 功能试验显示具有噬骨能力。结论: 联合消化结合RANKL/M-CSF诱导培养法可产生大量的破骨样细胞, 方法简便而且经济实用。

关键词 [人外周血](#); [破骨细胞](#); [培养](#); [诱导](#)

分类号

## Generating osteoclasts from human peripheral blood mononuclear cells

HUANG Hong-ming, JIANG Hua, ZHANG Hui, HOU Jian

Department of Hematology, Second Affiliated Hospital of Second Military Medical University, Shanghai 200003, China

Abstract

Objective To obtain highly production of osteoclasts from human peripheral blood in enough amount for the study of the mechanism of bone resorption in vitro.

Methods The classical osteoclastic induction method from peripheral blood combined with 0.25% trypsin/0.02% EDTA digestion was used to form osteoclast-like cells in the presence of M-CSF and RANKL. Results A large number of osteoclasts were induced and produced. The osteoclasts were positive for the TRAP staining and capable of bone resorption in vitro. Conclusion This method can produce highly production of osteoclasts in enough amount for biochemical and molecular biological research. It is a simple and economical method contrast to other method generating highly purified osteoclasts.

Key words [human peripheral blood](#) [osteoclast](#) [culture](#) [induction](#)

DOI:

通讯作者 侯健 [huojian167@sohu.com](mailto:huojian167@sohu.com)

作者个人主页 黄红铭;姜华;张慧;侯健

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