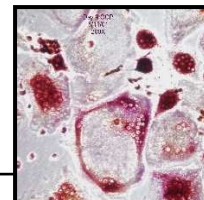


## Poietics™ Osteoclast Precursor Cell System

### OCP



### Introduction

Poietics™ Osteoclast Precursor Cell System contains normal Human Osteoclast Precursors (OCP) and differentiation medium that can be set up in a 96 well format to conduct research on osteoporosis, bone resorption, osteoporosis or other bone related diseases. Osteoclasts are large multinucleated cells that play an active role in bone resorption. Monocytes from the marrow or the blood serve as precursors of osteoclasts. Currently researchers drive monocytes to become osteoclasts with less than 10% efficiency. In contrast our Osteoclast Precursor Cell System yields up to 50% conversion of precursors to osteoclasts when differentiated. The cell system is convenient and easy to use, allowing the researcher to focus on results. OCP are shipped frozen.

Poietics™ Cells, Medium and Reagents are quality tested together and guaranteed to give optimum performance as a complete Cell System. Each Cell System can be custom designed to meet any specific research need. List individual catalog numbers for cells and medium when ordering.

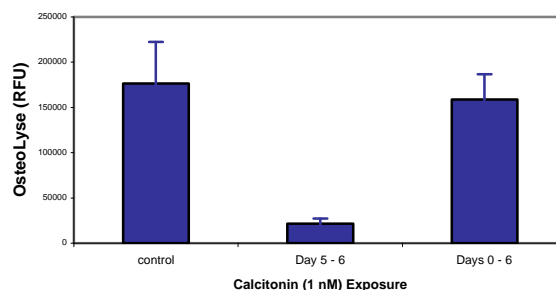
### Cell System Components (Need to be purchased separately)

- One Osteoclast Precursor Cell Product (Cryopreserved)
- One Osteoclast Precursor Cell Medium Product (BulletKit™)- 100 ml  
OPGM™ BulletKit™ (PT-8001) contains one 100 ml bottle of OPBM Basal Medium and the following differentiation supplements: soluble RANK ligand, 0.1 ml; M-CSF, 0.1 ml; L-glutamine, 1ml; FBS, 10 ml; Pen/Strep, 1 ml.

### Characterization of Cells

OCP are characterized morphologically at day 7 as large, multinucleated cells. Differentiated cells stain positive for tartrate-resistant acid phosphatase. Additional characterization assays are available upon request for an additional fee.

Effects of Calcitonin on Osteoclast-Mediated Bone Matrix Degradation In Vitro



Inhibition of bone matrix resorption by calcitonin as assayed in the OsteoLyse™ Assay. Primary Human Osteoclast Precursors were seeded onto an OsteoLyse™ Plate at 10,000 cells/well and cultured in differentiation medium containing no calcitonin, calcitonin added only at day 5 and calcitonin added on days 0 and 5. Ten µl samples of supernatants were counted after a total of 6 days. Calcitonin, added at day 0, resulted in the osteoclasts becoming refractory to calcitonin added on day 5.

### Performance

Recommended seeding density for subculture 30,000 cells/cm<sup>2</sup>  
96 well plate-  
10,000 cells per well

Typical time from seeding to differentiated monolayer 7 days

\*\*These cells do not undergo population doublings and will senesce in the absence of specific differentiation signals.

# Lonza

## Quality Control

Cell viability and morphology are measured after recovery from cryopreservation. Poietics™ Media are formulated for optimal growth of specific types of normal human cells. Each lot of SingleQuots™ are tested for the support of cell viability and differentiation capacity. Certificates of Analysis (COA) for each cell strain are shipped with each order. COA for all other products are available upon request. Non-routine performance and quality testing to meet your specifications is available for an additional fee.

## Ordering Information

|         |   |                     |
|---------|---|---------------------|
| 2T-110  | OCP Osteoclast Precursors   | 1,000,000 cells/amp |
| PT-8001 | OCGM BulletKit™   |                     |
| PT-8201 | OCBM Osteoclast Precursor Basal Medium                                | 100 ml              |
| PT-9501 | OCGM SingleQuots™ Soluble RANK Ligand M-CSF L-glutamine FBS Pen/Strep |                     |

When placing an order or for technical service, please refer to the product numbers and descriptions listed above. For a complete listing of all Clonetics™ Products, refer to the Lonza website or the current Lonza catalog. To obtain a catalog, additional information or technical service you may contact Lonza by web, e-mail, telephone, fax or mail.

## Product Warranty

CULTURES HAVE A FINITE LIFESPAN IN VITRO. Lonza warrants its cells only if Poietics™ Media are used, and the recommended protocols are followed. Cryopreserved OCP cells are assured to be viable and functional when thawed and maintained properly.

**THESE PRODUCTS ARE FOR RESEARCH USE ONLY.** Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or in vitro procedures.

**WARNING: CLONETICS™ AND POIETICS™ PRODUCTS CONTAIN HUMAN SOURCE MATERIAL, TREAT AS POTENTIALLY INFECTIOUS.** Each donor is tested and found non-reactive by an FDA approved method for the presence of HIV-1, Hepatitis B Virus and Hepatitis C Virus. Where donor testing is not possible, cell products are tested for the presence of viral nucleic acid from HIV, Hepatitis B Virus, and Hepatitis C Virus. Testing can not offer complete assurance that HIV-1, Hepatitis B Virus, and Hepatitis C Virus are absent. All human sourced products should be handled at the Biological Safety Level 2 to minimize exposure of potentially infectious products, as recommended in the CDC-NIH Manual, [Biosafety in Microbiological and Biomedical Laboratories](#), 5<sup>th</sup> Edition. If you require further information, please contact your site Safety Officer or Scientific Support.