



BONE RESORPTION ASSAY PLATE 24

BONE RESORPTION ASSAY PLATE 48

This product is a calcium phosphate (CaP)-coated 24-well or 48-well plate used to measure the bone resorption activity of osteoclasts. The plate is coated with a synthetic CaP (carbonate apatite), similar to that of natural apatite, which is able to be used as an alternative to dentin discs.

1) Specifications

(A) BONE RESORPTION ASSAY PLATE 24:

A 24-well plate coated with a synthetic CaP (carbonate apatite) (1 plate, gamma sterilized)

(B) BONE RESORPTION ASSAY PLATE 48:

A 48-well plate coated with a synthetic CaP (carbonate apatite) (1 plate, gamma sterilized)

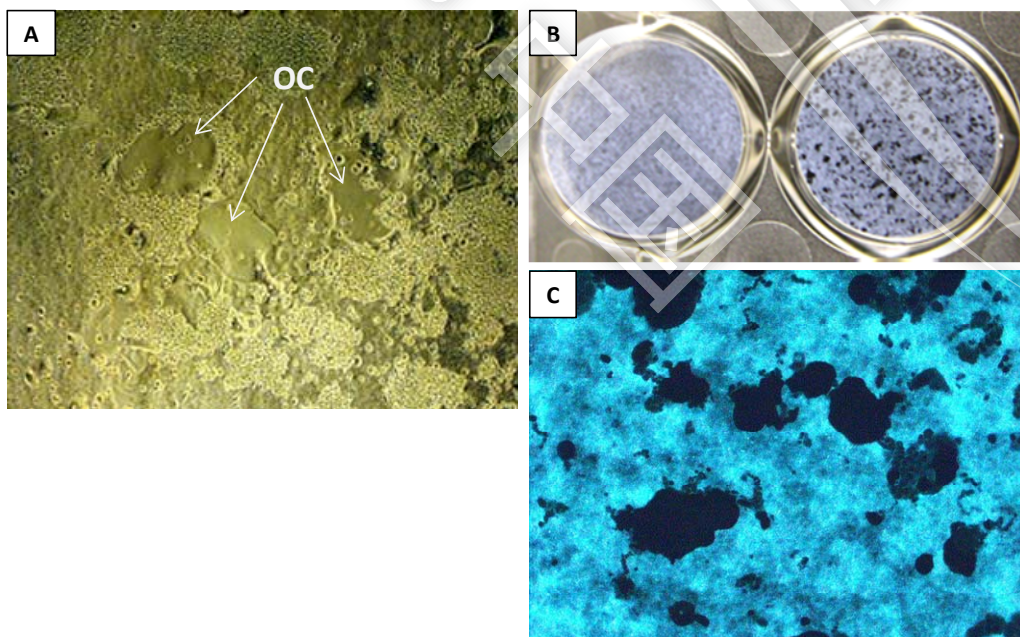
2) Example of use

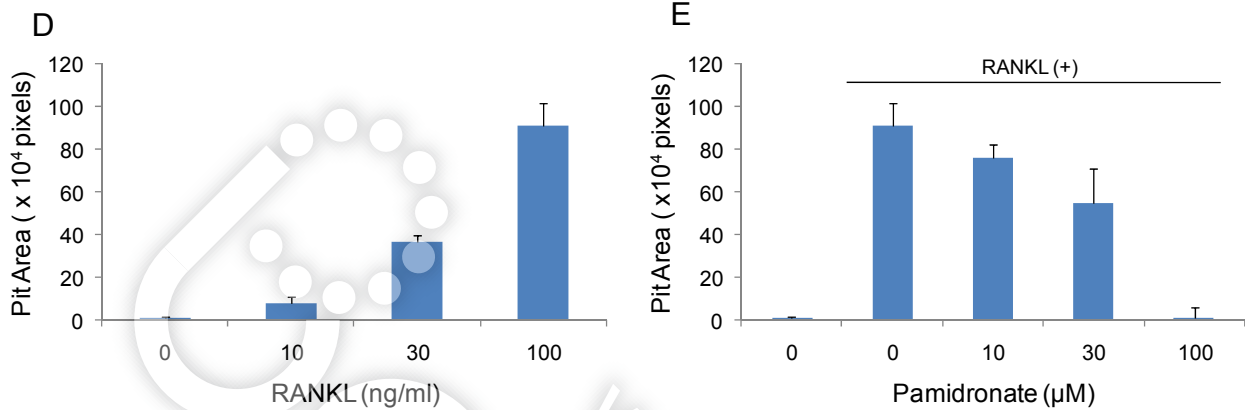
- (1) **A:** Wash each well of the 24-well plate with 1 mL of culture medium.
B: Wash each well of the 48-well plate with 0.5mL of culture medium.
- (2) Inoculate RAW264 or RAW264.7 cells into each well in culture medium (DMEM/F-12 or α MEM containing 10% FBS). Add an inducer of osteoclastic differentiation, such as RANKL (100 ng/mL) and the test substances to be evaluated.
A: 24-well plate 1×10^4 cells/mL; 1 mL/well
B: 48-well plate 5×10^3 cells/mL; 0.5mL/well
- (3) On day 3, change the medium with freshly made medium (containing RANKL and drugs). This step may be eliminated. However, the induction of osteoclastic differentiation by RANKL would be reduced.
- (4) On day 5 or 6, remove the conditioned medium from each well and treat the wells with 5% sodium hypochlorite for five minutes. After washing the plate with water and then drying it, photograph the regions in each well using a microscope and measure the pit area with image analyzing software.

3) Assay precautions

- (1) To stimulate cells, we recommend a RANKL concentration ≥ 100 ng/mL.
- (2) This product is for research use only, and not for use in diagnostic or therapeutic procedures.

4) Expected Results





- A. A phase-contrast micrograph of RAW264 cells (day 6) cultured in CaP-coated plates stimulated with RANKL (Oriental Yeast Co., Ltd., Tokyo, Japan; 100 ng/mL). Osteoclast-like cells (OC) were observed.
- B. Photograph of the plate after removing cells. Pits can be observed macroscopically (Left: without RANKL; Right: with RANKL).
- C. Micrograph of the pits in a CaP-coated plate (with RANKL).
- D. RANKL-dependent increase of the pit area (mean \pm S.D., n = 3).
- E. The inhibitory effect of the bisphosphonate, Pamidronate, on CaP resorption induced by RANKL (100 ng/mL).

5) Products

Product code	Product name	Quantity	Remarks
CSR-BRA-24KIT	BONE RESORPTION ASSAY KIT 24 (BRA-24P, BRA-FACS1, BRA-B1)	1 KIT	store below 4°C
CSR-BRA-48KIT	BONE RESORPTION ASSAY KIT 48 (BRA-48P, BRA-FACS1, BRA-B1)	1 KIT	store below 4°C
CSR-BRA-48x2KIT	BONE RESORPTION ASSAY KIT 48x2 (BRA-48P : 2pates, BRA-FACS1 : 2bottles, BRA-B1 : 1bottle)	2*1 KIT	store below 4°C
CSR-BRA-24P	BONE RESORPTION ASSAY PLATE 24	1 PLATE	store at room temperature or below 4°C in the dark sterile
CSR-BRA-48P	BONE RESORPTION ASSAY PLATE 48	1 PLATE	store at room temperature or below 4°C in the dark sterile
CSR-BRA-48x2P	BONE RESORPTION ASSAY PLATE 48x2 (BRA-48P : 2pates)	2*1 PLATE	store at room temperature or below 4°C in the dark sterile
CSR-BRA-FACS1	BONE RESORPTION ASSAY FACS	13 ML	store below 4°C in the dark sterile
CSR-BRA-B1	BONE RESORPTION ASSAY BUFFER	10 ML	store below 4°C in the dark

#20131009

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Manufactured by **PG**
Research



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Inspiration for Life Science

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