Fluorescence Detection

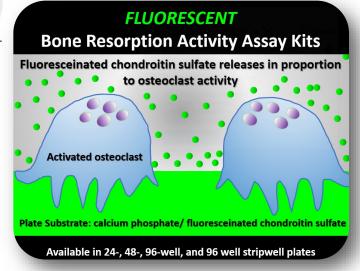
BONE RESORPTION ACTIVITY ASSAY KIT

& kit components

The Bone Resorption Activity Assay from Cosmo Bio allows quantification of oseteoclast resorption activity simply by measuring culture supernatant fluorescence, bypassing time consuming and tedious pit imaging. The assay is well-suited for studies on bone metabolism, osteoclastogeneisis, and compound evaluation.

Assay Features

- Quantify osteoclast bone resorption activity from culture supernatant.
- Four culture plate size options.
- Cell morphology can be microscopically observed.
- Measure resorption pit area after culture if needed.
- Sterilized components are ready-to-use for the assay.
- Highly cited product.
- CaP coated plates and reagents also availably separately.





24-well CaP coated culture plate



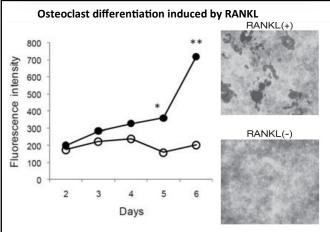
48-well CaP coated culture plate



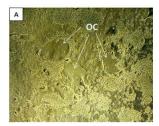
96-well CaP coated culture plate

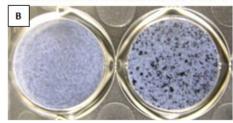


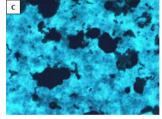
96-well CaP coated culture plate



Osteoclast differentiation of RAW264 cells was induced by RANKL (100 ng/mL) and evaluated by measuring the fluorescence intensity of supernatant of the medium. With RANKL, pit formation and increased fluorescence intensity were observed while "without RANKL" showed steady fluorescence intensity. (: with RANKL, o: without RANKL, *: p







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.

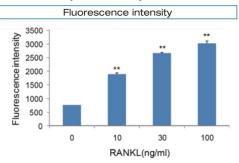
B) Photograph of the plate after removing cells. Pits can be observed macroscopically (Left: without RANKL; Right: with RANKL).

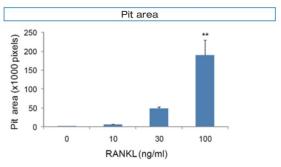
C) Micrograph of the pits in a CaP-coated plate (with RANKL).





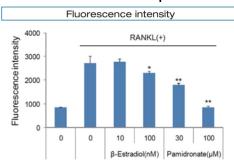
Bone Resorption Activity vs RANKL concentration

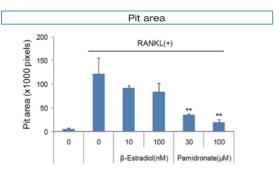




RANKL-dependent increases of the fluorescence intensity and pit area (mean ± S.D., n=3, **: p<0.001).

Evaluation of Bioactive Compounds





The inhibitory effects of Pamidronate and β -Estradiol on the resorption of CaP induced by RANKL (100 ng/mL) were evaluated by fluorescence intensity and pit area (mean \pm S.D., n=3, **: p<0.001).

Ordering Information

Product Name	Plate Type Included	Size	Catalog Number
Bone Resorption Assay Kit	24-well culture plate	1 x 24 rxns	CSR-BRA-24KIT
Kit components included: Calcium Phosphate (CaP} pre-coated plate(s) Fluorescienamine-Chondroitin Sulfate (FACS) Sample reading buffer (Assay Buffer).	48-well culture plate	1 x 48 rxns	CSR-BRA-48KIT
		2 x 48 rxns	CSR-BRA-48X2KIT
	96-well culture plate	1 x 96 rxns	CSR-BRA-96KIT
		2 x 96 rxns	CSR-BRA-96X2KIT
	96-well stepwell culture plate	1 x 96 rxns	CSR-BRA-S96KIT
		2 x 96 rxns	CSR-BRA-S96X2KIT
Bone Resorption Assay Plates (calcium phosphate coated)	24-well culture plate	1 x 24 plate	CSR-BRA-24P
	48-well culture plate	1 x 48 plate	CSR-BRA-48P
		2 x 48 plate	CSR-BRA-48X2P
	96-well culture plate	1 x 96 plate	CSR-BRA-96P
		2 x 96 plate	CSR-BRA-96x2P
	96-well stripwell culture plate	1 x 96 stripwell plate	CSR-BRA-S96P
		2 x 96 stripwell plates	CSR-BRA-S96X2P
Bone Resorption Assay Fluorescienamine-Chondroitin Sulfate (FACS)	-	10 ml	CSR-BRA-B1
Assay Buffer (sample reading buffer)	-	13 ml	CSR-BRA-FACS1

Related Information

Product Name	Catalog Number
Alkaline Phosphatase Staining Kit	PMC-AK20
TRAP Staining Kit (tartrate resistant acid phosphatase)	PMC-AK04F

See More Bone Related Products

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