

OsteoImage™ Mineralization Assay

Rapid, Fluorescent Assay for Bone Mineralization

The OsteoImage™ Mineralization Assay is a rapid, fluorescent *in vitro* assay for assessing bone cell mineralization. The OsteoImage™ Assay can quantitate *in vitro* mineralization by osteogenic stem cells, primary osteoblasts, and osteoblast-like cell lines. It is based on specific binding of the fluorescent OsteoImage™ Staining Reagent to the hydroxyapatite portion of bone-like nodules deposited by cells.

Unlike typical histochemical methods such as von Kossa and Alizarin red, neither of which is hydroxyapatite specific, the OsteoImage™ Assay eliminates multiple steps or tedious extraction steps.

The OsteoImage™ Assay is the newest addition to Lonza's line of products for bone research. Increase the speed, sensitivity and ease of measuring mineralization in your cell cultures with the OsteoImage™ Mineralization Assay.

■ The OsteoImage™ Mineralization Assay:

- Delivers qualitative visual fluorescent microscopy or quantitative plate reader results
- Can be used with primary osteoblasts, osteoblast stem cells, and osteoblast cell lines
- Measures hydroxyapatite, similar to real bone
- Completed in less than 90 minutes, without tedious extractions
- Sensitive enough to detect time-dependent increases in mineralization in differentiating cells
- Scalable for use in 6-well up to 96-well plates

The OsteoImage™ Mineralization Assay can quantitate *in vitro* mineralization by osteogenic stem cells, primary osteoblasts, and osteoblast-like cell lines (Figure 1). The assay is sufficiently sensitive to detect the time-dependent increases in mineralization in differentiating osteoblast cultures (Figure 2).

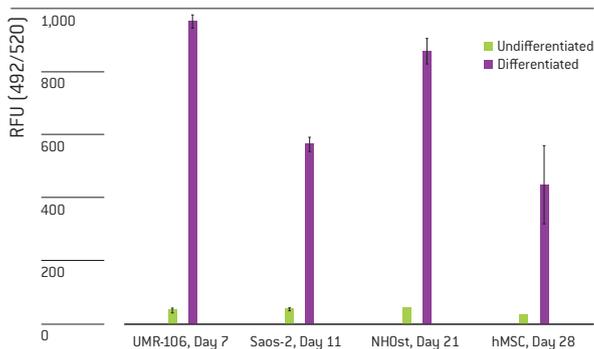


Figure 1. Osteoblast cell lines, Clonetics® NH0st-Normal Human Osteoblasts, and osteoblast-differentiated hMSC Human Mesenchymal Stem Cells were evaluated for mineralization with the OsteoImage™ Mineralization Assay on a 96-well plate reader.

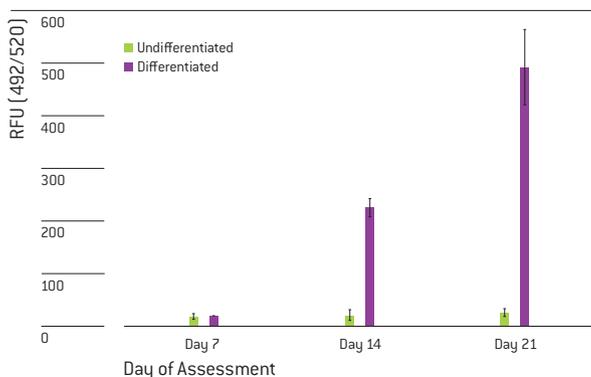
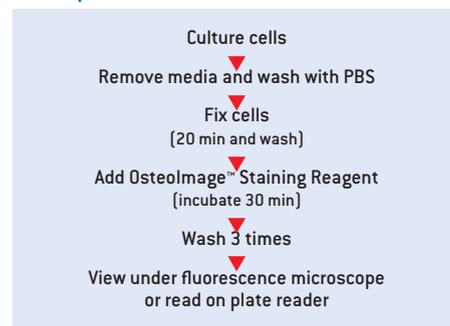


Figure 2. NH0st-Normal Human Osteoblasts were seeded at 3,200 cells/well in a 96-well plate. Cells were cultured as undifferentiated control cells or with differentiation factors. Mineralization was quantitated on a plate reader after staining with the OsteoImage™ Assay on days 7, 14 and 21.

Simple Protocol



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Ordering Information

OsteoImage™ Mineralization Assay

Cat. No.	Description	Size
PA-1503	OsteoImage™ Mineralization Assay	5 × 96 wells

Related Products

Cat. No.	Description	Size
CC-2538	NH0st-Normal Human Osteoblasts	≥500,000 cells
PT-5006	ADSC—Human Adipose-Derived Stem Cells	≥1 million cells
PT-2501	hMSC Human Mesenchymal Stem Cells	≥750,000 cells
PT-3002	hMSC Mesenchymal Stem Cell Osteogenic Differentiation BulletKit®	Kit

Bone-Related Products

Cat. No.	Description	Size
PA-1000	OsteoAssay™ Human Bone Plate	96 wells
PA-1500	OsteLyse™ Assay Kit (Human Collagen)	96 wells
PA-4490	Calcifluor™ Assay	3 × 96 wells

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