



Rat-MID™ Osteocalcin ELISA



Bone Formation Marker For Monitoring Preclinical Trials

Assessment of bone formation in rats

- Ovariectomized (OVX) rats
- Effect of anti-resorptive therapy, e.g. HRT in OVX rats

The Rat-MID™ ELISA is used for quantitative assessment of bone formation in rat serum and plasma. The assay detects total osteocalcin released by osteoblasts to the circulation.

nordicbioscience
diagnostics

www.nbdiagnostics.com

Rat-MID™ Osteocalcin
ELISA

Serum CrossLaps®
ELISA

CartiLaps®
ELISA

RatLaps™
ELISA

N-MID® Osteocalcin
ELISA

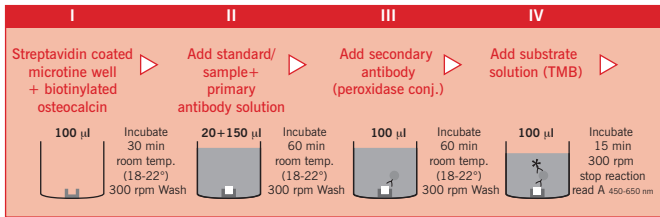
CrossLaps® for Culture
ELISA

Urine CrossLaps®
ELISA

Rat-MID™ Osteocalcin ELISA

ENZYME IMMUNOASSAY FOR QUANTITATIVE ASSESSMENT OF BONE FORMATION IN RATS

nordicbioscience
diagnostics



Performance Characteristics

Method:	• Competitive ELISA
Format:	• 96-well microplate with reagents sufficient to test 40 samples in duplicate
Detection limit:	• 50.0 ng/mL
Analyte:	• Total osteocalcin (intact, N-MID and MID fragment)
Specimen:	• Serum or plasma
Specimen volume:	• 20 µl
Precision CV intraassay:	• < 5%
Precision CV interassay:	• < 8%
Species Reactivity:	• Rat, guinea pig, rabbit, chicken
Shelf life:	• 6 months
Assay time:	• Approx. 3 hours

The Rat-MID™ ELISA kit is for research use only.

Product number #7OSC4000

Sampling

Collect blood samples and separate serum or plasma within 3 hours.

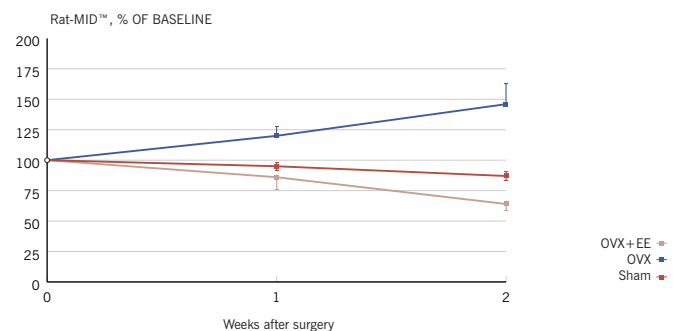
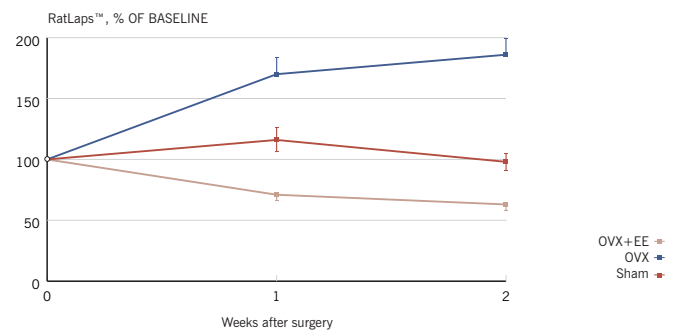
For prolonged storage samples should be frozen (<-18°C).

Expected values (females)	mean ± SD
SPRD 3 months	418 ± 83,5 ng/ml
6 months	136 ± 42,1 ng/ml

Assay Procedure

1. Add 100 µL of **Biotinylated Osteocalcin** to each well, cover with sealing tape, and incubate for 30±5 minutes at room temperature (18-22°C) on a microtitre plate mixing apparatus (300 rpm).
2. Wash the immunostrips 5 times with **Washing Solution**.
3. Add 20 µL of either **Standards, Control** or unknown samples into appropriate wells followed by 150 µL of the mixture of **Primary Antibody** in **Primary Incubation Buffer**. Cover the immunostrips with sealing tape and incubate for 60±5 minutes at room temperature (18-22°C). Wash as in 2.
4. Add 100 µL of the **Secondary Antibody** to each well, cover with sealing tape, and incubate for 60±5 minutes at room temperature (18-22°C). Wash as in 2.
5. Pipette 100 µL of the **Substrate Solution** into each well and incubate for 15±2 minutes in darkness.
6. Pipette 100 µL of the **Stopping Solution** into each well.
7. Measure the absorbance at 450 nm with 650 nm as reference within 2 hours.

Effect of estradiol monitored by RatLaps™ and Rat-MID™ ELISA in OVX rats



The ovariectomized (OVX) rat is an experimental model of postmenopausal bone loss (recommended by FDA)

LITERATURE: 1. JOCHEMS ET AL. ARTHRITIS RES THER 7:R837-R843 (2005). 2. KATSUMATA ET AL. MAGNES RES 18:91-96 (2005). 3. LEFORT ET AL UROL INT 74:301-307 (2005). 4. MOLLARD ET AL. J NUTR 135:499-504 (2005). 5. SCHALLER ET AL. J BONE MINER RES 19:1144-1153 (2004). 6. TIVESTEN ET AL. J BONE MINER RES 19:1833-1839 (2004).

all the way

FROM RESEARCH TO PATIENT MONITORING

Nordic Bioscience Diagnostics A/S • Herlev Hovedgade 207 • 2730 Herlev • Denmark • www.nbdiagnostics.com