osteomiR™ Kit for Research-Use Only (RUO) – Biomarkers of Bone Quality

Circulating microRNAs in serum are novel biomarkers for bone quality and musculoskeletal diseases.

- The osteomiR™ RUO kit enables minimal-invasive detection of microRNA biomarkers for musculoskeletal diseases (“osteomiRs”).
- osteomiRs have been carefully selected based on a series of case/control studies.
  - post-menopausal osteoporosis
  - idiopathic male and female osteoporosis
  - type-2 diabetic osteopathy
- osteomiRs are significantly regulated between fracture-patients and controls.
- osteomiRs regulate bone formation and resorption via RUNX2, WNT, and RANKL.
- The clinical utility of the osteomiR™ kit for fracture-risk prediction and treatment monitoring will be investigated in clinical trials.

List of osteomiRs, clinical relevance to osteoporosis (OP) and impact on bone turnover

<table>
<thead>
<tr>
<th>microRNA</th>
<th>female postmeno OP</th>
<th>male/female idiopathic OP</th>
<th>female type-2 diab. OP</th>
<th>bone formation</th>
<th>bone resorption</th>
<th>high tissue expression</th>
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<tbody>
<tr>
<td>hsa-let-7b-5p</td>
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Key publications

The osteomiR™ RUO kit combines a quantitative PCR (qPCR) kit with a tailored software solution.

One kit is sufficient to analyze 48 serum samples.

Per sample 200 µL of human serum are required.

Serum can be stored frozen for >10 years prior to use.

All reagents required for the extraction of RNA from serum and the quantification of 16 microRNAs per sample are included with the kit.

• 11 microRNA biomarkers per sample
• 2 sample quality controls per sample (hemolysis)
• 3 technical quality controls per sample (technical variation)

Primer-coated 96-well plates reduce hands-on time as well as technical variation due to pipetting.

The osteomiR™ software app can be downloaded by all users of the kit. This app enables fast, simple and standardized analysis of qPCR data.

User equipment requirements:
• Microtube centrifuge with cooling
• Microtube heating block
• Calibrated Pipettes
• Supported qPCR instruments:
  – Roche LightCycler® 480
  – ABI 7900HT

Visit www.tamirna.com/osteomir for price, ordering details and download of more information.