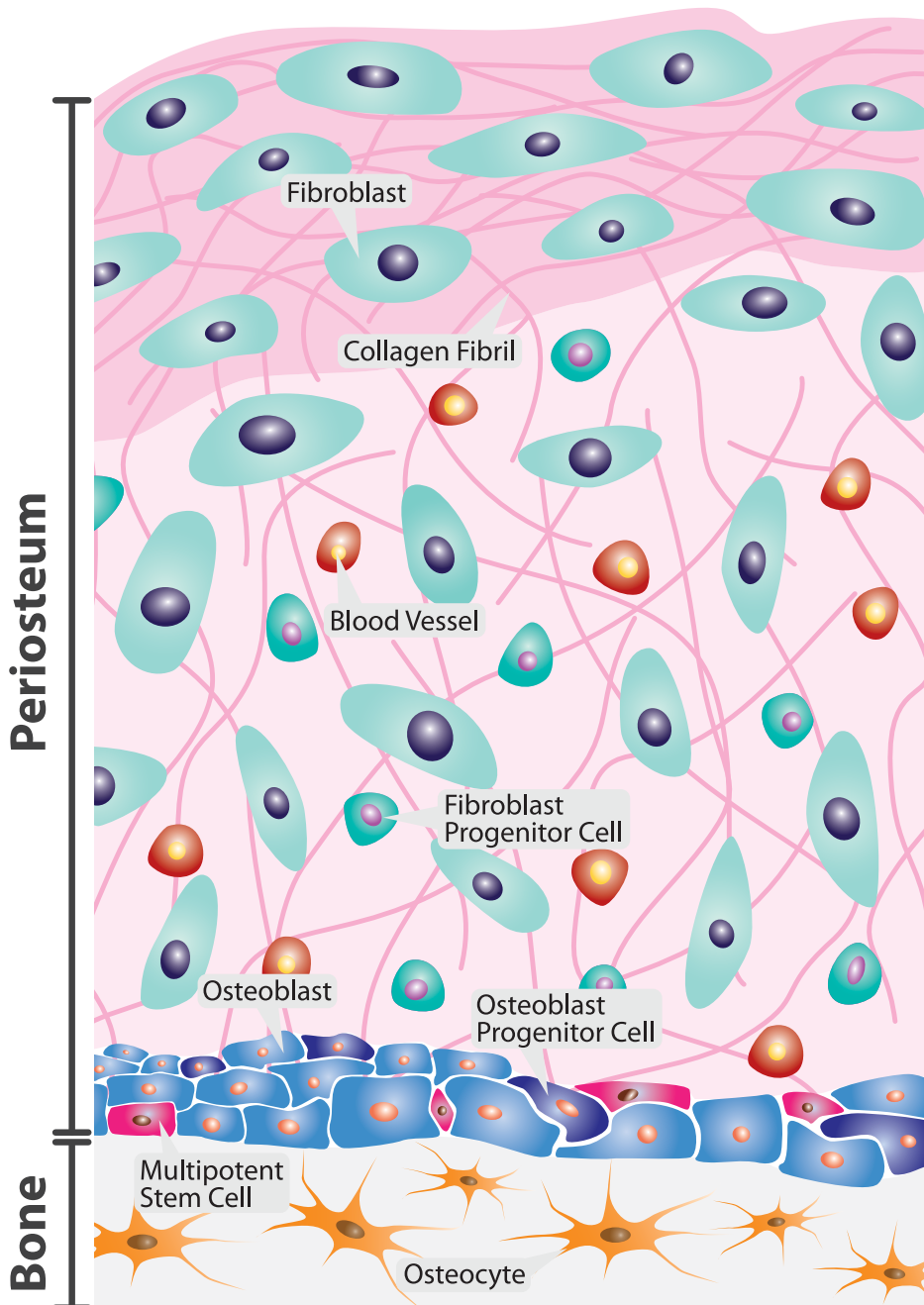


PERIOSTIN ELISA



Fully validated assay for the quantification of human Periostin in serum and plasma.



✓ reliable

✓ sensitive

✓ specific



Setting the **standard**
for **clinical** research.

Periostin (OSF-2) is secreted as a 91 kDa homodimeric soluble extracellular matrix protein expressed in collagen-rich fibrous connective tissues. Periostin is involved in osteoblast recruitment, attachment and spreading (1). It has been associated with the epithelial-mesenchymal transition in cancer and with the differentiation of mesenchyme in the developing heart (2). Periostin has functions in osteology, tissue repair, oncology, cardiovascular and respiratory diseases, and in various inflammatory settings (3). There are at least 7 isoforms of Periostin, caused by alternative splicing.

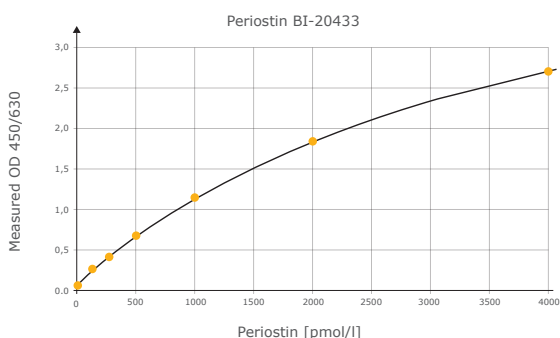
Features and Benefits

- FULLY VALIDATED for serum and plasma – according to ICH-Q2
- 7 SERUM BASED STANDARDS and 2 CONTROLS – for biologically reliable data
- CONVENIENT EASY PROTOCOL – all reagents included
- HIGHLY SPECIFIC – the assay detects all known splicing forms of human Periostin
- LOW SAMPLE VOLUME – 10 µl for duplicates

Assay Characteristics

- Method: Sandwich ELISA, HRP/TMB, 12x8-well strips
- Sample type: Serum and plasma (EDTA, heparin, citrate)
- Sample size: 150 µl pre-diluted sample / well
- Standard range: 0 – 4000 pmol/l (7 serum based standards + 2 controls)
- Sensitivity: LOD: 20 pmol/l, LLOQ: 62.5 pmol/l
- Incubation: 2 h / 2 h / 1 h / 30 min
- Unit conversion: 1 pg/ml = 0.011 pmol/l (MW: 91.0 kDa)

Typical Standard Curve



Precision

	Intra-assay (n=5)		Inter-assay (n=10)	
	Sample 1	Sample 2	Sample 1	Sample 2
Mean (pmol/l)	249	2008	251	1996
SD (pmol/l)	7.3	52	11.2	111.5
CV (%)	3	3	4	6

Spike/Recovery

Sample matrix	Mean S/R [%]	
	+500 pmol/l	+2000 pmol/l
Serum (n=7)	106	95
EDTA plasma (n=8)	98	83
Heparin plasma (n=7)	92	85
Citrate plasma (n=8)	102	91

Dilution Linearity

Sample matrix	Mean R of dilution steps [%]	
	1+1	1+3
Serum (n=12)	101	105
EDTA plasma (n=4)	99	115
Heparin plasma (n=4)	96	126
Citrate plasma (n=4)	95	122

SPECIFICITY

The assay is optimized to detect all known splicing forms of human Periostin.

Literature:

1. Identification and characterization of a novel protein, periostin, with restricted expression to periosteum and periodontal ligament and increased expression by transforming growth factor beta. *Horiuchi K et al., J Bone Miner Res 1999; 14: 1239-1249.*
2. The multiple facets of periostin in bone metabolism. *Merle B, Garnero P, Osteoporos Int 2012; 23: 1199-1212.*
3. The role of periostin in tissue remodeling across health and disease. *Conway SJ et al., Cell Mol Life Sci 2014; 71: 1279-1288.*