



Human DMP-1 Assay Kit

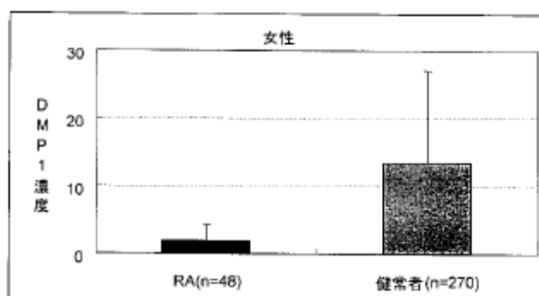
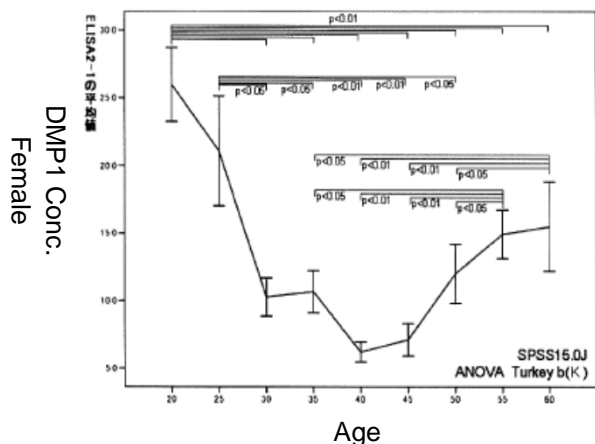
Osteocyte origin, a biomarker which reflects activities of osteocyte

- Research Use Only-

Dentin Matrix Protein 1 (DMP1) is a protein in one of **proteins in the extracellular matrix** that is family of mall Integrin-Binding Ligand, N-linked Glycoprotein (SIBLING). It is synthesized as a full-length 105kDa proprotein and it is divided into 37kDa at N terminal side and 57kDa at C terminal side in the secretion process. It has a lot of acidic domains and it binds with calcium because of the feature that become negative charged within tissues and it has an important role for **bone mineralization**. DMP1 expresses in osteocyte while other constitutive proteins in extracellular matrix such as Osteopontin, Osteocalcin and Bone sialoprotein **express in osteoblast cells**. Osteocyte which is a main constituent cell of bone regulates activities of osteoclastic cells and osteoblast cells and it adjusts bone remodeling process. It also acts as an endocrine cell which secretes FGF-23. DMP1 in blood is considered as a candidate of **biomarker which reflects activities of osteocyte** and it is also suggested to become useful information for research of bone metabolism and phosphate metabolism.

Product code	Product Name	Size	Measurement Range	Sample Type	Measuring Samples			
					Serum	EDTA-Plasma	Urine	Cell Culture supernatant
27261	Human DMP1 Assay Kit - IBL	96 well	3.6 ~ 230 pmol/L	H	○	○	○	○
27363	Rat DMP1 Assay Kit - IBL	96 well	39.06 ~ 2500 pg/mL	R	○	○	/	○

H: Human R: Rat



Left Diagram is quoted from Patent No. 2013-3066 (P2013-3066A)

【References】

1: Sato S, Hashimoto J, Usami Y, Ohyama K, Isogai Y, Hagiwara Y, Maruyama N, Komori T, Kuroda T, Toyosawa S. Novel sandwich ELISAs for rat DMP1: age-related decrease of circulatory DMP1 levels in male rats. *Bone*. 2013 Dec;57(2):429-36.

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