



















- Alvarez J, Ohshima T, Kulkarni AB, et al. Gene expression patterns of murine dentin matrix protein 1 (Dmp1) and dentin sialophosphoprotein (DSPP) suggest distinct developmental functions in vivo. *J Bone Miner Res* 1997;12:2040-9.
19. MacDougall M. Refined mapping of the human dentin sialophosphoprotein (DSPP) gene within the critical dentinogenesis imperfecta type II and dentin dysplasia type II loci. *Eur J Oral Sci* 1998;106(Suppl 1):227-33.
  20. He G, George A. Dentin matrix protein 1 immobilized on type I collagen fibrils facilitates apatite deposition in vitro. *J Biol Chem* 2004;279:11649-56.
  21. Terasawa M, Shimokawa R, Terashima T, Ohya K, Takagi Y, Shimokawa H. Expression of dentin matrix protein 1 (DMP1) in non-mineralized tissues. *J Bone Miner Metab* 2004;22:430-8.
  22. Li C, Xie X, Wang X, Sun Y, Liu P, Chen L, et al. Differential expression and localization of dentin matrix protein 1 (DMP1) fragments in mouse submandibular glands. *J Mol Histol* 2013;44:231-9.
  23. Feng JQ, Zhang J, Dallas SL, Lu Y, Chen S, Tan X, et al. Dentin matrix protein 1, a target molecule for Cbfa1 in bone, is a unique bone marker gene. *J Bone Miner Res* 2002;17:1822-31.
  24. Sun Y, Ma S, Zhou J, Yamoah AK, Feng JQ, Hinton RJ, et al. Distribution of small integrin-binding ligand, N-linked glycoproteins (SIBLING) in the articular cartilage of the rat femoral head. *J Histochem Cytochem* 2010;58:1033-43.
  25. Sun Y, Gandhi V, Prasad M, Yu W, Wang X, Zhu Q, et al. Distribution of small integrin-binding ligand, N-linked glycoproteins (SIBLING) in the condylar cartilage of rat mandible. *Int J Oral Maxillofac Surg* 2010;39:272-81.
  26. Igarashi M, Kamiya N, Ito K, Takagi M. In situ localization and in vitro expression of osteoblast/osteocyte factor 45 mRNA during bone cell differentiation. *Histochem J* 2002;34:255-63.
  27. Chen S, Chen L, Jahangiri A, Chen B, Wu Y, Chuang HH, et al. Expression and processing of small integrin-binding ligand N-linked glycoproteins in mouse odontoblastic cells. *Arch Oral Biol* 2008;53:879-89.
  28. Lu C, Huang S, Miclau T, Helms JA, Colnot C. Mepe is expressed during skeletal development and regeneration. *Histochem Cell Biol* 2004;121:493-9.
  29. Liu S, Brown TA, Zhou J, Xiao ZS, Awad H, Guilak F, et al. Role of matrix extracellular phosphoglycoprotein in the pathogenesis of X-linked hypophosphatemia. *J Am Soc Nephrol* 2005;16:1645-53.
  30. Staines KA, Mackenzie NC, Clarkin CE, Zelenchuk L, Rowe PS, MacRae VE, et al. MEPE is a novel regulator of growth plate cartilage mineralization. *Bone* 2012;51:418-30.
  31. Shibata S, Sakamoto Y, Baba O, Qin C, Murakami G, Cho BH. An immunohistochemical study of matrix proteins in the craniofacial cartilage in midterm human fetuses. *Eur J Histochem* 2013;57:e39.
  32. Shibata S, Yokohama-Tamaki T. An in situ hybridization study of Runx2, Osterix, and Sox9 in the anlagen of mouse mandibular condylar cartilage in the early stages of embryogenesis. *J Anat* 2008;213:274-83.
  33. Shibata S, Fukuoka H, Sato R, Abe T, Suzuki Y. An in situ hybridization study of the IGF system in developing condylar cartilage of the fetal mouse mandible. *Eur J Histochem* 2012;56:e23.
  34. Shibata S, Sato R, Murakami G, Fukuoka H, Rodríguez-Vázquez JF. Origin of mandibular condylar cartilage in mice, rats and humans: periosteum or separate blastema? *J Oral Biosci* 2013;55:208-16.
  35. Gluhak-Heinrich J, Pavlin D, Yang W, MacDougall M, Harris SE. MEPE expression in osteocytes during orthodontic tooth movement. *Arch Oral Biol* 2007;52:664-9.
  36. Wang HG, Kawashima N, Iwata T, Xu J, Takahashi S, Sugiyama T, et al. MEPE activated by furin promotes dental cell adhesion. *J Dent Res* 2011;90:329-34.
  37. Baba O, Qin C, Brun J, Wygant JN, McIntyre BW, Butler WT. Colocalization of dentin matrix protein 1 and dentin sialoprotein in late stages of rat molar development. *Matrix Biol* 2004;23:371-9.
  38. Shibata S, Baba O, Oda T, Yokohama-Tamaki T, Qin C, Butler WT, et al. An immunohistochemical and ultrastructural study of the pericellular matrix of uneroded hypertrophic chondrocytes in the mandibular condyle of aged c-src-deficient mice. *Arch Oral Biol* 2008;53:220-30.
  39. Shibata S, Morita T, Yokohama-Tamaki T, Murakami G, Cho BH. An immunohistochemical study of matrix components in early-stage vascular canals within mandibular condylar cartilage in midterm human fetuses. *Anat Rec* 2015;298:1560-71.
  40. Takeushi Y, Matsumoto T, Ogata E, Shishiba Y. Isolation and characterization of proteoglycans synthesized by mouse osteoblastic cells in culture during the mineralization process. *Biochem J* 1990;266:15-24.
  41. Luder HU, Leblond CP, von der Mark K. Cellular stages in cartilage formation as revealed by morphometry, radioautography and type II collagen immunostaining of the mandibular condyle from weanling rats. *Am J Anat* 1988;182:197-214.
  42. Shibata S, Fukada K, Imai H, Abe T, Yamashita Y. In situ hybridization and immunohistochemistry of versican, aggrecan and link protein, and histochemistry of hyaluronan in the developing mouse limb bud cartilage. *J Anat* 2003;203:425-32.
  43. Toyosawa S, Shintani S, Fujiwara T, Ooshima T, Sato A, Ijuhin N, et al. Dentin matrix protein 1 is predominantly expressed in chicken and rat osteocytes but not in osteoblasts. *J Bone Miner Res* 2001;16:2017-26.
  44. Nomura S, Wills AJ, Edwards DR, Heath JK, Hogan BL. Developmental expression of 2ar (osteopontin) and SPARC (osteonectin) RNA as revealed by in situ hybridization. *J Cell Biol* 1988;106:441-50.
  45. Sommer B, Bickel M, Hofstetter W, Wetterwald A. Expression of matrix proteins during the development of mineralized tissues. *Bone* 1996;19:371-80.
  46. Tartax PH, Doulaverakis M, George A, Fisher WW, Butler WT, Qin C, et al. In vitro effects of dentin matrix protein-1 on hydroxyapatite formation provide insights into in vivo functions. *J Biol Chem* 2004;279:18115-20.
  47. Gericke A, Qin C, Sun Y, Redfern R, Redfern D, Fujimoto Y, et al. Different forms of DMP1 play distinct roles in mineralization. *J Dent Res* 2010;89:355-9.
  48. Maciejewska I, Qin D, Huang B, Sun Y, Mues G, Svoboda K, et al. Distinct compartmentalization of dentin matrix protein 1 fragments in mineralized tissues and cells. *Cells Tissues Organs* 2009;189:186-91.
  49. Maciejewska I, Cowan C, Svoboda K, Butler WT, D'Souza R, Qin C. The NH2-terminal and COOH-terminal Fragments of Dentin Matrix Protein 1 (DMP1) Localize Differently in the Compartments of Dentin and Growth Plate of Bone. *J Histochem Cytochem* 2009;57:155-166.
  50. Gowen LC, Petersen DN, Mansolf AL, Qi H, Stock JL, Tkalecic GT, et al. Targeted disruption of the osteoblast/osteocyte factor 45 gene (OF45) results in increased bone formation and bone mass. *J Biol Chem* 2003;278:1998-2007.
  51. Nampei A, Hashimoto J, Hayashida K, Tsuboi H, Shi K, Tsuji I, et al. Matrix extracellular phosphoglycoprotein (MEPE) is highly expressed in osteocytes in human bone. *J Bone Miner Metab* 2004;22:176-84.
  52. David V, Martin A, Hedge AM, Rowe PS. Matrix extracellular phosphoglycoprotein (MEPE) is a new bone renal hormone and vascularization modulator. *Endocrinology* 2009;150:4012-23.
  53. Midura RJ, Midura SB, Su X, Gorski JP. Separation of newly formed bone from older compact bone reveals clear compositional differences in bone matrix. *Bone* 2011;49:1365-74.