

ARG64688 anti-DMP1 antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes DMP1
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Specificity	This antibody is expected to recognize both reported isoforms (NP_004398.1; NP_001073380.1).
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	DMP1
Species	Human
Immunogen	C-ENSEQANTQDSG
Conjugation	Un-conjugated
Alternate Names	DMP-1; Dentin matrix protein 1; ARHP; Dentin matrix acidic phosphoprotein 1; ARHR

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:200
	WB	1 - 3 µg/ml

Application Note WB: Recommend incubate at RT for 1h.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

Database links

[GeneID: 1758 Human](#)

[Swiss-port # Q13316 Human](#)

Background

Dentin matrix acidic phosphoprotein is an extracellular matrix protein and a member of the small integrin binding ligand N-linked glycoprotein family. This protein, which is critical for proper mineralization of bone and dentin, is present in diverse cells of bone and tooth tissues. The protein contains a large number of acidic domains, multiple phosphorylation sites, a functional arg-gly-asp cell attachment sequence, and a DNA binding domain. In undifferentiated osteoblasts it is primarily a nuclear protein that regulates the expression of osteoblast-specific genes. During osteoblast maturation the protein becomes phosphorylated and is exported to the extracellular matrix, where it orchestrates mineralized matrix formation. Mutations in the gene are known to cause autosomal recessive hypophosphatemia, a disease that manifests as rickets and osteomalacia. The gene structure is conserved in mammals. Two transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

Research Area

Developmental Biology antibody; Signaling Transduction antibody

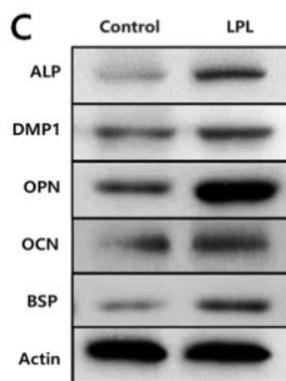
Calculated Mw

56 kDa

PTM

Phosphorylated in the cytosol and extracellular matrix and unphosphorylated in the nucleus. Phosphorylation is necessary for nucleocytoplasmic transport and may be catalyzed by a nuclear isoform of CK2 and can be augmented by calcium. Phosphorylated (in vitro) by FAM20C in the extracellular medium at sites within the S-x-E/pS motif.

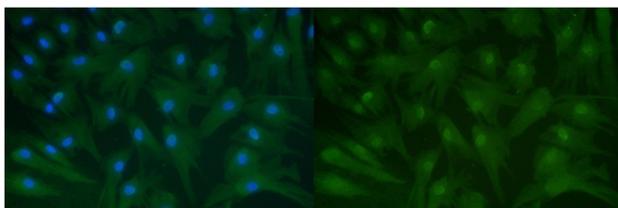
Images



ARG64688 anti-NGEF Antibody WB image

Western blot: human dental pulp stem cells (hDPSCs) stained with ARG64688 anti-NGEF Antibody.

From Kim Hong-Bae et al. *Sci Rep.* (2018), [doi: 10.1038/s41598-018-19395-x](https://doi.org/10.1038/s41598-018-19395-x), Fig. 5C.

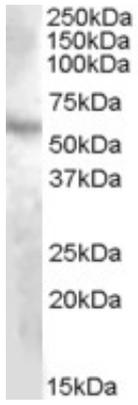


Merge DAPI

Unmerge

ARG64688 anti-DMP1 antibody ICC/IF image

Immunofluorescence: WJMSC cells fixed with 10% Formalin for 20 min and blocked with PBS, 5% FBS and 0.1% Triton at RT for 30 min. Cells were incubated in PBS with 5% FBS and stained with ARG64688 anti-DMP1 antibody (green) at 1:200 dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



ARG64688 anti-DMP1 antibody WB image

Western blot: 35 µg of Human kidney lysate (in RIPA buffer) stained with ARG64688 anti-DMP1 antibody at 1 µg/ml dilution and incubated at RT for 1 hour.