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ANKH Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9741b

Specification

ANKH Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9HCJ1

ANKH Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 56172

Other Names
Progressive ankylosis protein homolog, ANK, ANKH, KIAA1581

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ANKH Antibody (C-term) Blocking Peptide - Protein Information

Name ANKH {ECO:0000303|PubMed:35147247, ECO:0000312|HGNC:HGNC:15492}

Function
Transports adenosine triphosphate (ATP) and possibly other nucleoside triphosphates (NTPs) from cytosol to the extracellular space. Mainly regulates their levels locally in peripheral tissues while playing a minor systemic role. Prevents abnormal ectopic mineralization of the joints by regulating the extracellular levels of the calcification inhibitor inorganic pyrophosphate (PPi), which originates from the conversion of extracellular NTPs to NMPs and PPis by ENPP1 (PubMed:20943778, PubMed:32639996, PubMed:35147247). Regulates the release of the TCA cycle intermediates to the extracellular space, in particular citrate, succinate and malate. Extracellular citrate mostly present in bone tissue is required for osteogenic differentiation of mesenchymal stem cells, stabilization of hydroxyapatite structure and overall bone strength (PubMed:32639996). The transport mechanism remains to be elucidated (Probable).

Cellular Location
Cell membrane; Multi-pass membrane protein

Tissue Location

Found in osteoblasts from mandibular bone and from iliac bone; not detected in osteoclastic cells

ANKH Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ANKH Antibody (C-term) Blocking Peptide - Images

ANKH Antibody (C-term) Blocking Peptide - Background

ANKH is a multipass transmembrane protein that is expressed in joints and other tissues and controls pyrophosphate levels in cultured cells. Progressive ankylosis-mediated control of pyrophosphate levels has been suggested as a possible mechanism regulating tissue calcification and susceptibility to arthritis in higher animals.

ANKH Antibody (C-term) Blocking Peptide - References

Wang, J., et al. J. Rheumatol. 36(6):1265-1272(2009)Ho, A.M., et al. Science 289(5477):265-270(2000)Rojas, K., et al. Genomics 62(2):177-183(1999)