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ANKH Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9741B

Specification

ANKH Antibody (C-term) - Product Information

Application	**WB, FC, IHC-P,E**
Primary Accession	Q9HCJ1
Other Accession	P58366, Q9JHZ2
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**464-492**

ANKH Antibody (C-term) - Additional Information

Gene ID 56172

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

Target/Specificity
This ANKH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 464-492 amino acids from the C-terminal region of human ANKH.

Dilution
WB~~1:1000
FC~~1:10~50
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ANKH Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ANKH Antibody (C-term) - 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

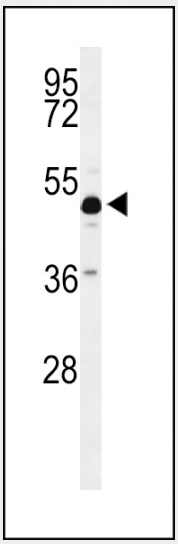
Tissue Location
Found in osteoblasts from mandibular bone and from iliac bone; not detected in osteoclastic cells

ANKH Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ANKH Antibody (C-term) - Images



Western blot analysis of ANKH Antibody (C-term) (Cat. #AP9741b) in mouse cerebellum tissue lysates (35ug/lane). ANKH (arrow) was detected using the purified Pab.

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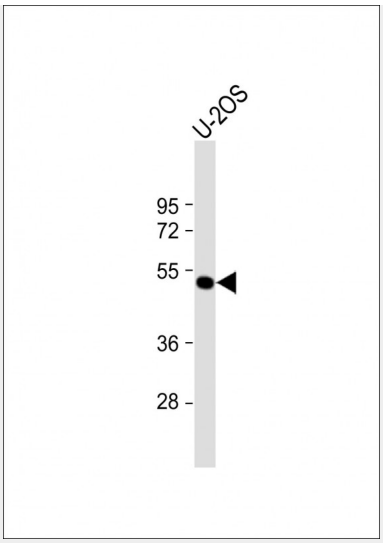
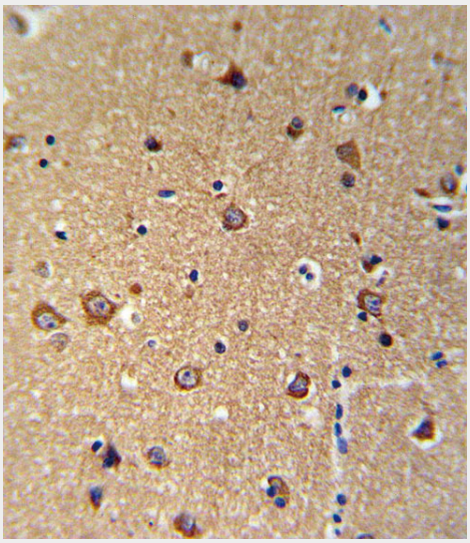


Anti-ANKH Antibody (C-term) at 1:1000 dilution + U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



ANKH Antibody (C-term) (Cat. #AP9741b) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ANKH Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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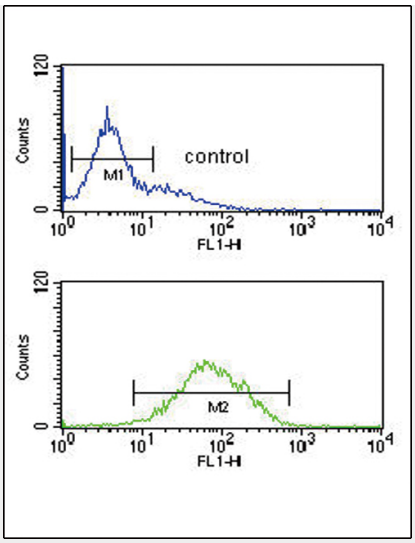

ANKH Antibody (C-term) (Cat. #AP9741b) flow cytometric analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ANKH Antibody (C-term) - 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) - 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)