

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

**Specification**

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**ANKH Antibody (C-term) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">O9HCJ1</a>
Other Accession	<a href="#">P58366</a> , <a href="#">O9JHZ2</a>
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  
IHC-P~~1:10~50  
FC~~1:10~50

**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

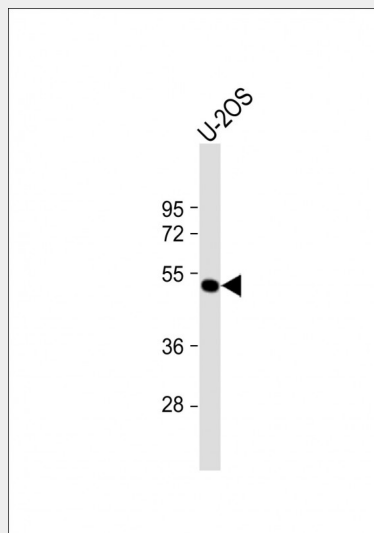
Found in osteoblasts from mandibular bone and from iliac bone; not detected in osteoclastic cells

### ANKH Antibody (C-term) - Protocols

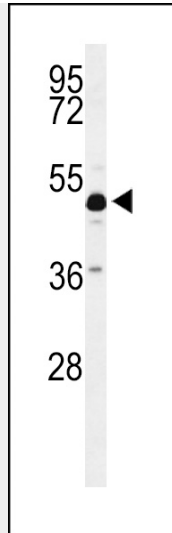
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

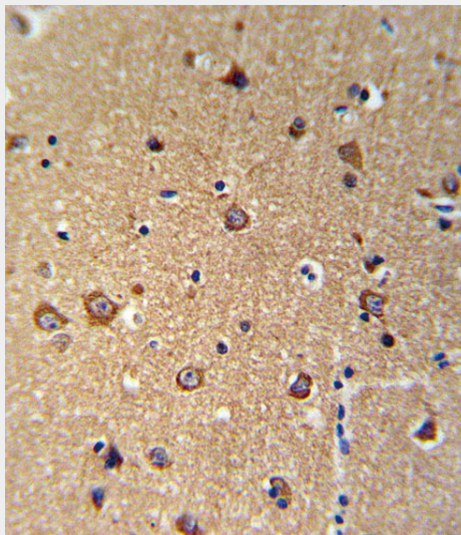
### ANKH Antibody (C-term) - Images



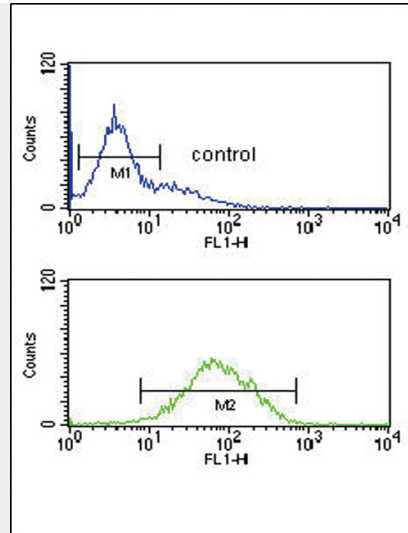
Anti-ANKH Antibody (C-term) at 1:1000 dilution + U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFD/MBST.



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.



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.



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)