

# **ANKLE2 Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP59371

#### **Product Information**

**Application** WB, IHC-P, IHC-F, IF, E

Primary Accession

Reactivity
Rat, Bovine

Host
Rabbit
Clonality
Polyclonal
Calculated MW
Physical State
Liquid

Immunogen KLH conjugated synthetic peptide derived from human ANKLE2

Epitope Specificity 251-350/938

**Isotype** IgG

**Purity** affinity purified by Protein A

Buffer 0.01M TE

SUBCELLULAR LOCATION

**SIMILARITY** 

0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Endoplasmic reticulum membrane; Single-pass type III membrane protein. Belongs to the ANKLE2 family. Contains 1 ANK repeat. Contains 1 LEM

domain.

**SUBUNIT** Interacts with BAF/BANF1. Interacts with protein phosphatase 2A (PP2A)

components PPP2C (PPP2CA or PPP2CB) and PPP2R1A.

**Important Note** This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKLE2 (ankyrin repeat and LEM domain containing 2), also known as LEMD7, is a 938 amino acid single-pass membrane protein containing an ANK repeat and a LEM domain. Exsiting as two isoforms produced by alternative splicing events, the gene encoding ANKLE2 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

### **Additional Information**

Gene ID 23141

Other Names Ankyrin repeat and LEM domain-containing protein 2, LEM domain-containing

protein 4, ANKLE2, KIAA0692, LEM4

**Dilution** WB=1:500-2000,IHC-P=1:100-500,IF=1:50-200,ELISA=1:5000-

10000

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

**Storage** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

#### **Protein Information**

Name ANKLE2

Synonyms KIAA0692, LEM4

**Function** Involved in mitotic nuclear envelope reassembly by promoting

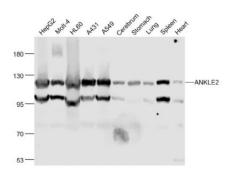
dephosphorylation of BAF/BANF1 during mitotic exit (PubMed:22770216). Coordinates the control of BAF/BANF1 dephosphorylation by inhibiting VRK1 kinase and promoting dephosphorylation of BAF/BANF1 by protein phosphatase 2A (PP2A), thereby facilitating nuclear envelope assembly (PubMed:22770216). May regulate nuclear localization of VRK1 in non-dividing cells (PubMed:31735666). It is unclear whether it acts as a real PP2A regulatory subunit or whether it is involved in recruitment of the PP2A

complex (PubMed:<u>22770216</u>). Involved in brain development

(PubMed: 25259927).

**Cellular Location** Endoplasmic reticulum membrane; Single-pass type III membrane protein

## **Images**



#### Sample:

HepG2(Human) Cell Lysate at 30 ug Molt-4Human) Cell Lysate at 30 ug HL60(Human) Cell Lysate at 30 ug A431(Human) Cell Lysate at 30 ug A549(Human) Cell Lysate at 30 ug Cerebrum (Mouse) Lysate at 40 ug Stomach (Mouse) Lysate at 40 ug Lung (Mouse) Lysate at 40 ug Spleen (Mouse) Lysate at 40 ug Heart (Mouse) Lysate at 40 ug

Primary: Anti-ANKLE2 (AP59371) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at

1/20000 dilution

Predicted band size: 117 kD Observed band size: 117 kD

 $Please\ note: All\ products\ are\ 'FOR\ RESEARCH\ USE\ ONLY.\ NOT\ FOR\ USE\ IN\ DIAGNOSTIC\ OR\ THERAPEUTIC\ PROCEDURES'.$