Product Name: AKAP 13 Rabbit Polyclonal Antibody
Catalog #: APRab06719
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	307kDa

Antigen Information

Gene Name	AKAP13
Alternative Names	AKAP13; BRX; HT31; LBC; A-kinase anchor protein 13; AKAP-13; AKAP-Lbc; Breast cancer nuclear receptor-binding auxiliary protein; Guanine nucleotide exchange factor Lbc; Human thyroid-anchoring protein 31; Lymphoid blast crisis oncogene; LBC
Gene ID	11214.0
SwissProt ID	Q12802
Immunogen	The antiserum was produced against synthesized peptide derived from human AKAP13. AA range:721-770

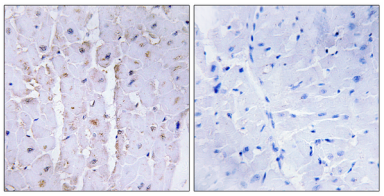
Background

The A-kinase anchor proteins (AKAPs) are a group of structurally diverse proteins which have the common function of binding to the regulatory subunit of protein kinase A (PKA) and confining the holoenzyme to discrete locations within the cell. This gene encodes a member of the AKAP family. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms containing c-terminal dbl oncogene homology (DH) and pleckstrin homology (PH) domains. The DH domain is associated with guanine nucleotide exchange activation for the Rho/Rac family of small GTP binding proteins, resulting in the conversion of the inactive GTPase to the active form capable of transducing signals. The PH domain has multiple functions. Therefore, these isoforms function as scaffolding proteins to coordinate a Rho signaling pathway, function as protein kinase A-anchoring proteins and, in addicaution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,domain:Both the DH and PH domains are required for transforming activity.,function:Anchors cAMP-dependent protein kinase (PKA) and acts as an adapter protein to selectively couple G alpha-13 and Rho. Augments gene activation by the estrogen receptor in an element-specific and ligand-dependent manner. Activates estrogen receptor beta by a p38 MAPK-dependent pathway. Isoform 6 stimulates exchange activity on Rho proteins in vitro, but not on CDC42, Ras or Rac and may bind calcium ions.,similarity:Contains 1 DH (DBL-homology) domain.,similarity:Contains 1 PH domain.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,subunit:Binds cAMP-dependent protein kinase (PKA) and to the RII-alpha regulatory subunit of PKA. Interacts with ESR1, ESR2, THRA, PPARA, RHOA and NME2.,tissue specificity:Isoform 3 and isoform 6 are found in hematopoietic cells, skeletal muscle, lung, heart, estrogen-responsive reproductive tissues, including breast ductal epithelium. Also found in testis and breast cancer cell lines. Isoform 6 is not found in brain, placenta, liver, pancreas or kidney. Isoform 7 is expressed in myeloid and lymphoid lineages, a variety of epithelial tissues and skeletal muscle. Isoform 2 is predominantly found in the heart and at lower levels in the lung, placenta, kidney, pancreas, skeletal muscle and liver.,

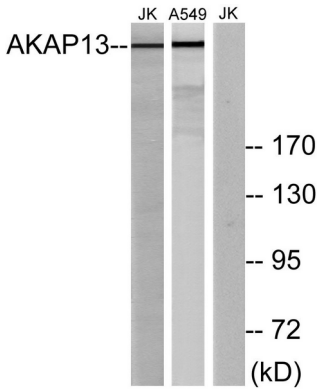
Research Area

Regulation of Actin Dynamics; AMPK

Image Data



Immunohistochemistry analysis of paraffin-embedded human heart tissue, using AKAP13 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat and A549 cells, using AKAP13 Antibody. The lane on the right is blocked with the synthesized peptide.