

## PRODUCT DATA SHEET

Bioworld Technology,Inc.

# **AKAP13** monoclonal antibody

Catalog: MB67085 Host: Mouse Reactivity: Human

#### **BackGround:**

Scaffold protein that plays an important role in assembling signaling complexes downstream of several types of G protein-coupled receptors. Activates RHOA in response to signaling via G protein-coupled receptors via its function as Rho guanine nucleotide exchange factor.

May also activate other Rho family members.

Part of a kinase signaling complex that links ADRA1A and ADRA1B adrenergic receptor signaling to the activation of downstream p38 MAP kinases, such as MAPK11 and MAPK14.

Part of a signaling complex that links ADRA1B signaling to the activation of RHOA and IKBKB/IKKB, leading to increased NF-kappa-B transcriptional activity.

Part of a RHOA-dependent signaling cascade that mediates responses to lysophosphatidic acid (LPA), a signaling molecule that activates G-protein coupled receptors and potentiates transcriptional activation of the glucocorticoid receptor NR3C1.

Part of a signaling cascade that stimulates MEF2C-dependent gene expression in response to lysophosphatidic acid (LPA) (By similarity).

Part of a signaling pathway that activates MAPK11 and/or MAPK14 and leads to increased transcription activation of the estrogen receptors ESR1 and ESR2.

Part of a signaling cascade that links cAMP and EGFR signaling to BRAF signaling and to PKA-mediated phosphorylation of KSR1, leading to the activation of downstream MAP kinases, such as MAPK1 or MAPK3.

Functions as scaffold protein that anchors cAMP-dependent protein kinase (PKA) and PRKD1. This promotes activation of PRKD1, leading to increased phosphorylation of HDAC5 and ultimately cardiomyocyte hypertrophy.

Has no guanine nucleotide exchange activity on CDC42, Ras or Rac.

Required for normal embryonic heart development, and in particular for normal sarcomere formation in the developing cardiomyocytes (By similarity).

Plays a role in cardiomyocyte growth and cardiac hypertrophy in response to activation of the beta-adrenergic receptor by phenylephrine or isoproterenol.

Required for normal adaptive cardiac hypertrophy in response to pressure overload.

Plays a role in osteogenesis (By similarity).

#### **Product:**

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

## **Molecular Weight:**

~ 307 kDa

## **Swiss-Prot:**

Q12802

## **Purification&Purity:**

This antibody is purified through a protein G column.

#### **Applications:**

WB (1/500 - 1/4000)

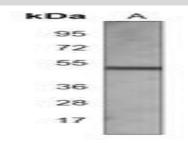
#### **Storage&Stability:**

Store at  $4 \,\mathrm{C}$  short term. Aliquot and store at  $-20 \,\mathrm{C}$  long term. Avoid freeze-thaw cycles.

## **Specificity:**

Recognizes endogenous levels of AKAP13 protein.

#### **DATA:**



Western blot analysis of AKAP13 expression in recombinant probein (A) whole cell lysates.

## Note:

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For research use only, not for use in diagnostic procedure.

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