Data Sheet (Cat.No.TMAB-11739)

TargetMol

Anti-PRKAR2A Polyclonal Antibody 2

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 49 kDa. Actual: 46 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	Sample: Lane 1: Lymph node (Mouse) Lysate at 40 µg Lane 2: Testis (Mouse) Lysate at 40 µg Lane 3: Testis (Rat) Lysate at 40 µg Lane 4: Cerebellum (Mouse) Lysate at 40 µg Lane 5: K562 (Human) Cell Lysate at 30 µg Lane 6: Hela (Human) Cell Lysate at 30 µg Lane 7: MDA-MB-231 (Human) Cell Lysate at 30 µg Lane 8: U251 (Human) Cell Lysate at 30 µg Lane 9: U937 (Human) Cell Lysate at 30 µg Lane 10: A673 (Human) Cell Lysate at 30 µg Primary: Anti-PRKAR2A (TMAB-11739) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 46 kD Observed band size: 46 kD
Application:	WB,ICC/IF,ELISA
Recommended	WB: 1:500-2000; ICC/IF: 1:50 - 1:200; ELISA: 1:5000-10000

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: human PRKAR2A
Antigen Species:	Human
Gene ID:	5576
Uniprot ID:	P13861

Research Background

The second messenger cyclic AMP (cAMP) mediates diverse cellular responses to external signals such as proliferation, ion transport, regulation of metabolism and gene transcription by activation of the cAMP-dependent protein kinase (cAPK or PKA). Activation of PKA occurs when cAMP binds to the two regulatory subunits of the tetrameric PKA holoenzyme, resulting in release of active catalytic subunits. Activation of transcription upon elevation of cAMP levels results from translocation of PKA to the nucleus, where it phosphorylates the transcription

factor cAMP response element binding protein (CREB) on Serine 133, which in turn leads to TFIIB binding to TATA-box-binding protein TBP1, thus linking phospho-CREB to the Pol II transcription initiation complex. Mouse Serine 96 (designated Ser 99 in human) is a phosphorylation site on the PKA II?regulatory subunit.

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