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Sik1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI12635

Product Information

Application	WB
Primary Accession	Q9R1U5
Other Accession	NM_021693, NP_067725
Reactivity	Human, Mouse, Rat, Zebrafish, Dog, Guinea Pig, Horse
Predicted	Human, Mouse, Rat, Chicken, Dog, Guinea Pig, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	84909

Additional Information

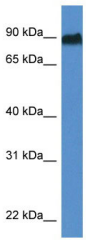
Gene ID	59329
Alias Symbol	Sik, Snf1lk
Other Names	Serine/threonine-protein kinase SIK1, 2.7.11.1, Protein kinase KID2, Salt-inducible kinase 1, SIK-1, Serine/threonine-protein kinase SNF1-like kinase 1, Serine/threonine-protein kinase SNF1LK, Sik1, Kid2, Sik, Snf1lk
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Sik1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Sik1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Sik1
Synonyms	Kid2, Sik, Snf1lk
Function	Serine/threonine-protein kinase involved in various processes such as cell cycle regulation, gluconeogenesis and lipogenesis regulation, muscle growth and differentiation and tumor suppression. Phosphorylates HDAC4, HDAC5, PPME1, SREBF1, CRTC1/TORC1 and CRTC2/TORC2. Acts as a tumor suppressor and plays a key role in p53/TP53-dependent anoikis, a type of apoptosis triggered by cell detachment: required for phosphorylation of p53/TP53 in response to loss of adhesion and is able to suppress metastasis. Part of a

	sodium- sensing signaling network, probably by mediating phosphorylation of PPME1: following increases in intracellular sodium, SIK1 is activated by CaMK1 and phosphorylates PPME1 subunit of protein phosphatase 2A (PP2A), leading to dephosphorylation of sodium/potassium-transporting ATPase ATP1A1 and subsequent increase activity of ATP1A1. Acts as a regulator of muscle cells by phosphorylating and inhibiting class II histone deacetylases HDAC4 and HDAC5, leading to promote expression of MEF2 target genes in myocytes. Also required during cardiomyogenesis by regulating the exit of cardiomyoblasts from the cell cycle via down- regulation of CDKN1C/p57Kip2. Acts as a regulator of hepatic gluconeogenesis by phosphorylating and repressing the CREB-specific coactivators CRTC1/TORC1 and CRTC2/TORC2, leading to inhibit CREB activity. Also regulates hepatic lipogenesis by phosphorylating and inhibiting SREBF1. In concert with CRTC1/TORC1, regulates the light- induced entrainment of the circadian clock by attenuating PER1 induction; represses CREB-mediated transcription of PER1 by phosphorylating and deactivating CRTC1/TORC1 (By similarity).
Cellular Location	Cytoplasm. Nucleus. Note=Following ACTH (adrenocorticotropic hormone) treatment and subsequent phosphorylation by PKA, translocates to the cytoplasm, where it binds to YWHAZ

Images



WB Suggested Anti-Sik1 Antibody Titration: 1.0 µg/ml
Positive Control: Rat Lung