SIK1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Sik1, Polyclonal Antibody
Full Product Name	Sik1, CT (Sik1, Msk, Sik, Snf1lk, Serine/threonine-protein kinase SIK1, HRT-20, Myocardial SNF1-like kinase, Salt-inducible kinase 1, Serine/threonine-protein kinase SNF1-like kinase 1) (MaxLight 650)
Product Gene Name	anti-Sik1 antibody
Product Synonym Names	Sik1; Msk; Sik; Snf1lk; Serine/threonine-protein kinase SIK1; HRT-20; Myocardial SNF1-like kinase; Salt-inducible kinase 1; Serine/threonine-protein kinase SNF1-like kinase 1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	85,115 Da
3D Structure	ModBase 3D Structure for Q60670
Immunogen	Mouse Sik1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 572-600 amino acids from the C-terminal region of human Mouse Sik1.
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-Sik1 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-Sik1 antibody	Western Blot (WB), FLISA
Application Notes for anti-Sik1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-Sik1 antibody	Transient role during the earliest stages of myocardial cell differentiation and/or primitive chamber formation and may also be important for the earliest stages of skeletal muscle growth and/or differentiation. Potential role in G2/M cell cycle regulation. Inhibits CREB activity by phosphorylating and repressing the CREB-specific coactivators, CRTC1-3.
Product References and Citations for anti-Sik1 antibody	Romito, A., et al. PLoS ONE 5 (2), E9029 (2010): Takemori, H., et al. Endocr. J. 56(1):121-130(2009). Berdeaux, R., et al. Nat. Med. 13(5):597-603(2007). Katoh, Y., et al. FEBS J. 273(12):2730-2748(2006). Cobellis, G., et al. Nucleic Acids Res. 33 (4), E44 (2005).
Other Notes	Small volumes of anti-Sik1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for Sik1 purchase	MBS6347656 is an antibody targeting Sik1. Also known as Sik1, CT (Sik1, Msk, Sik, Snf1lk, Serine/threonine-protein kinase SIK1, HRT-20, Myocardial SNF1-like kinase, Salt-inducible kinase 1, Serine/threonine-protein kinase SNF1-like kinase 1) (MaxLight 650). Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Sik1. It may not necessarily be applicable to this product.

NCBI GI #	110815830
NCBI GeneID	17691
NCBI Accession #	NP_034961.2
UniProt Primary Accession #	Q60670
UniProt Secondary Accession #	Q3UR46
UniProt Related Accession #	Q60670
GenBank Nucleotide #	NM_010831.2
NCBI Official Full Name	serine/threonine-protein kinase SIK1
NCBI Official Synonym Full Names	salt inducible kinase 1
NCBI Official Symbol	Sik1
NCBI Official Synonym Symbols	Msk; Sik; Snf1lk
UniProt Protein Name	Serine/threonine-protein kinase SIK1
UniProt Synonym Protein Names	HRT-20; Myocardial SNF1-like kinase; Salt-inducible kinase 1; SIK-1; Serine/threonine-protein kinase SNF1-like kinase 1; Serine/threonine-protein kinase SNF1LK
Protein Family	Serine/threonine-protein kinase
UniProt Gene Name	Sik1
UniProt Synonym Gene Names	Msk; Sik; Snf1lk; SIK-1; Serine/threonine-protein kinase SNF1LK
UniProt Entry Name	SIK1_MOUSE
NCBI Protein Information	serine/threonine-protein kinase SIK1

UniProt Comments for Sik1	SIK: 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, TORC1/CRTC1 and TORC2/CRTC2. 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 TORC1/CRTC1 and TORC2/CRTC2, leading to inhibit CREB activity. Also regulates hepatic lipogenesis by phosphorylating and inhibiting SREBF1. Interacts with ATP1A1. Interacts (when phosphorylated on Thr-182 and Ser-186) with YWHAZ. Activated by phosphorylation on Thr-182. Also activated by phosphorylation on Thr-322 in response to increases in intracellular sodium in parallel with elevations in intracellular calcium through the reversible sodium/calcium exchanger. Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. AMPK subfamily. Protein type: Kinase, protein; Tumor suppressor; Protein kinase, CAMK; Motility/polarity/chemotaxis; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); CAMK group; CAMKL family; QIK subfamily Cellular Component: cytoplasm; nucleus; cytosol Molecular Function: metal ion binding; histone deacetylase binding; magnesium ion binding; nucleotide binding; protein kinase binding; protein kinase activity; transferase activity; protein serine/threonine kinase activity; protein binding; transferase activity, transferring phosphorus-containing groups; cAMP response element binding protein binding; kinase activity; ATP binding Biological Process: multicellular organismal development; regulation of mitotic cell cycle; rhythmic process; regulation of sodium ion transport; negative regulation of transcription from RNA polymerase II promoter; cell cycle; protein amino acid phosphorylation; cardiac muscle cell differentiation; entrainment of circadian clock by photoperiod; anoikis; negative regulation of gluconeogenesis; inhibition of CREB transcription factor; cell differentiation; phosphorylation
Research Articles on Sik1	**1.** Vascular SIK1 activation may be involved in the prevention of high blood pressure development triggered by high-salt intake through the modulation of the contractile phenotype of VSMCs via transforming growth factor-beta1-signaling inhibition.
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