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SIK3 Antibody

Catalog # ASC11411

Product Information

Application	WB, IF, E
Primary Accession	Q9Y2K2
Other Accession	NP_079440, 38569491
Reactivity	Human, Mouse, Rat
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Calculated MW	144851
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SIK3 antibody can be used for detection of SIK3 by Western blot at 1 g/mL. Antibody can also be used for immunofluorescence starting at 20 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	23387
Other Names	Serine/threonine-protein kinase SIK3, 2.7.11.1, Salt-inducible kinase 3, SIK-3, Serine/threonine-protein kinase QSK, SIK3, KIAA0999, QSK
Target/Specificity	SIK3; At least three isoforms of SIK3 are known to exist; this antibody will detect two isoforms. SIK3 antibody is predicted to not cross-react with SIK1 and SIK2.
Reconstitution & Storage	SIK3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SIK3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SIK3 (HGNC:29165)
Function	Positive regulator of mTOR signaling that functions by triggering the degradation of DEPTOR, an mTOR inhibitor. Involved in the dynamic regulation of mTOR signaling in chondrocyte differentiation during skeletogenesis (PubMed:30232230). Negatively regulates cAMP signaling pathway possibly by acting on CRTC2/TORC2 and CRTC3/TORC3 (Probable). Prevents HDAC4 translocation to the nucleus (By similarity).

Cellular Location	Cytoplasm. Note=Locates to punctate structures within the cytoplasm on binding to YWHAZ.
Tissue Location	Expressed in chondrocytes.

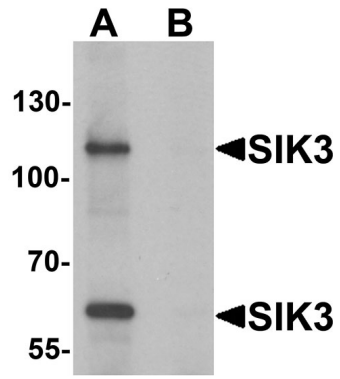
Background

SIK3 Antibody: Salt-inducible kinase family (SIKs) proteins are thought to have a role in steroidogenesis, adipogenesis or regulation of tumor malignancy. Three members (SIK1, SIK2 and SIK3) in the SIK family have been identified thus far. Their kinase domain sequences are closely homologous to those of AMP-activated protein kinase (AMPK). SIK3 can be phosphorylated by a tumor-suppressor kinase LKB1. It is highly and preferentially expressed in ovarian tumors but not in adenomyosis and leiomyoma and may be a potential diagnostic marker for ovarian cancers.

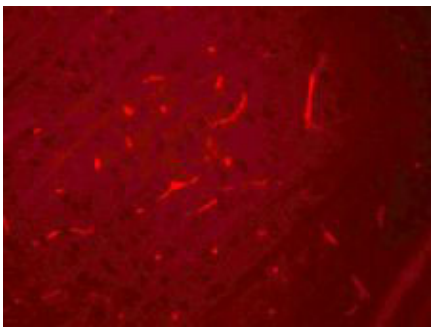
References

Katoh Y, Takemori H, Horike N, et al. Salt-inducible kinase (SIK) isoforms: their involvement in steroidogenesis and adipogenesis. Mol. Cell. Endocrinol. 2004; 217:109-12.
Al-Hakim AK, G □ransson O, Deak M, et al. 14-3-3 cooperates with LKB1 to regulate the activity and localization of QSK and SIK. J. Cell Sci. 2005; 118:5661-73.
Charoenfuprasert S, Yang YY, Lee YC, et al. Identification of salt-inducible kinase 3 as a novel tumor antigen associated with tumorigenesis of ovarian cancer. Oncogene 2011; 30:3570-84.

Images



Western blot analysis of SIK3 in rat brain tissue lysate with SIK3 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of SIK3 in rat brain cells with SIK3 antibody at 20 µg/mL.