SANTA CRUZ BIOTECHNOLOGY, INC.

SIK2 (B-12): sc-393139

BACKGROUND

QIK (Qin-induced kinase) is a serine/threonine-protein kinase that belongs to the AMPK/SNF1 kinase family. Also designated SIK2 (SNF1-like kinase 2), QIK is one of 12 human kinases (NUAK1, NUAK2, BRSK1, BRSK2, QIK, QSK, SIK, MARK1, MARK2, MARK3, MARK4 and MELK) related to AMPK. QIK is a ubiquitously expressed protein and is rapidly upregulated after a hormone-regulated form of Qin is activated. *In vitro* kinase tests demonstrate that QIK is capable of autophosphorylation. Elevated levels of QIK transcripts are also observed in Src-transformed cells, suggesting that Src and Qin share some targets.

CHROMOSOMAL LOCATION

Genetic locus: SIK2 (human) mapping to 11q23.1.

SOURCE

SIK2 (B-12) is a mouse monoclonal antibody raised against amino acids 656-726 mapping within an internal region of SIK2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SIK2 (B-12) is available conjugated to agarose (sc-393139 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393139 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393139 PE), fluorescein (sc-393139 FITC), Alexa Fluor® 488 (sc-393139 AF488), Alexa Fluor® 546 (sc-393139 AF546), Alexa Fluor® 594 (sc-393139 AF594) or Alexa Fluor® 647 (sc-393139 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393139 AF680) or Alexa Fluor® 790 (sc-393139 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SIK2 (B-12) is recommended for detection of SIK2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SIK2 siRNA (h): sc-44364, SIK2 shRNA Plasmid (h): sc-44364-SH and SIK2 shRNA (h) Lentiviral Particles: sc-44364-V.

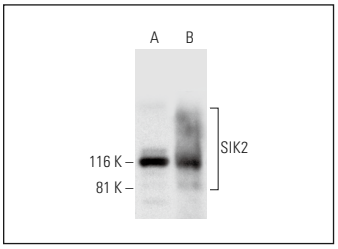
Molecular Weight of SIK2: 104 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NCI-H292 whole cell lysate: sc-364179 or human hippocampus tissue extract.

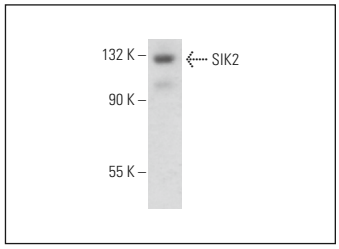
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SIK2 (B-12): sc-393139. Western blot analysis of SIK2 expression in HeLa whole cell lysate (**A**) and human hippocampus tissue extract (**B**).



SIK2 (B-12): sc-393139. Western blot analysis of SIK2 expression in NCI-H292 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Klaeger, S., et al. 2017. The target landscape of clinical kinase drugs. Science 358: eaan4368.
2. Rong, X., et al. 2019. Molecular mechanisms of tyrosine kinase inhibitor resistance induced by membranous/cytoplasmic/nuclear translocation of epidermal growth factor receptor. J. Thorac. Oncol. 14: 1766-1783.
3. Pu, J., et al. 2022. Salt-inducible kinase 1 deficiency promotes vascular remodeling in pulmonary arterial hypertension via enhancement of yes-associated protein-mediated proliferation. Heliyon 8: e11016.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.