

Datasheet for ABIN5010544

## anti-SIK1 antibody (AA 51-150) (AbBy Fluor® 680)



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### Overview

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| Quantity:            | 100 µL                                              |
| Target:              | SIK1                                                |
| Binding Specificity: | AA 51-150                                           |
| Reactivity:          | Human, Mouse                                        |
| Host:                | Rabbit                                              |
| Clonality:           | Polyclonal                                          |
| Conjugate:           | This SIK1 antibody is conjugated to AbBy Fluor® 680 |
| Application:         | Western Blotting (WB), Flow Cytometry (FACS)        |

### Product Details

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Immunogen:            | KLH conjugated synthetic peptide derived from human Snf1lk |
| Isotype:              | IgG                                                        |
| Cross-Reactivity:     | Human, Mouse                                               |
| Predicted Reactivity: | Rat,Dog,Pig,Horse                                          |
| Purification:         | Purified by Protein A.                                     |

### Target Details

|                   |                                                                                 |
|-------------------|---------------------------------------------------------------------------------|
| Target:           | SIK1                                                                            |
| Alternative Name: | SIK1 ( <a href="#">SIK1 Products</a> )                                          |
| Background:       | Synonyms: Serine/threonine-protein kinase SIK1, Salt-inducible kinase 1, SIK-1, |

## Target Details

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Serine/threonine-protein kinase SNF1-like kinase 1, Serine/threonine-protein kinase SNF1LK, SIK1, SIK, SNF1LK

Background: 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).

|           |                                                                                                                                                                              |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID:  | 102724428                                                                                                                                                                    |
| UniProt:  | <a href="#">P57059</a>                                                                                                                                                       |
| Pathways: | <a href="#">Regulation of Muscle Cell Differentiation</a> , <a href="#">Skeletal Muscle Fiber Development</a> , <a href="#">Regulation of Carbohydrate Metabolic Process</a> |

## Application Details

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|--------------------|-----------------------|
| Application Notes: | FCM 1:20-100          |
| Restrictions:      | For Research Use only |

## Handling

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|         |        |
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| Format: | Liquid |
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## Handling

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|--------------------|--------------------------------------------------------------------------------------------------------------------|
| Concentration:     | 1 µg/µL                                                                                                            |
| Buffer:            | Aqueous buffered solution containing 0.01M TBS ( pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol.        |
| Preservative:      | ProClin                                                                                                            |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only. |
| Storage:           | -20 °C                                                                                                             |
| Storage Comment:   | Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles.                                  |
| Expiry Date:       | 12 months                                                                                                          |