

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human SNF1LK2 in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SNF1LK2 Ala663-Leu818 Accession # Q9H0K1
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

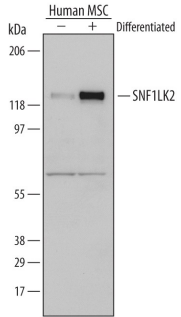
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below

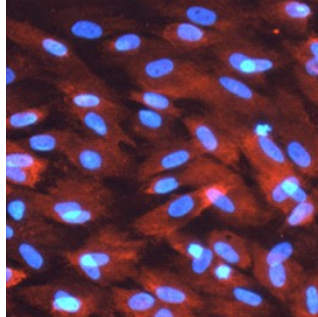
## DATA

**Western Blot**



**Detection of Human SNF1LK2 by Western Blot.** Western blot shows lysates of human mesenchymal stem cells (MSC) grown in the absence (-) or presence (+) of StemXVivo™ Adipogenic Supplement (Catalog # CCM001). PVDF membrane was probed with 1 µg/mL of Goat Anti-Human SNF1LK2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5737), followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for SNF1LK2 at approximately 125 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**



**SNF1LK2 in Human Adipocytes.** SNF1LK2 was detected in immersion fixed human adipocytes using 10 µg/mL Goat Anti-Human SNF1LK2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5737) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

SNF1LK2 (Sucrose non-fermenting 1 like kinase 2) also known as SIK2 (Salt-inducible kinase 2) is a cytoplasmic 125 kDa member of the CAMK Ser/Thr protein kinase family, AMPK subfamily of enzymes. It is expressed in preadipocytes/adipocytes, with levels strongly induced during early differentiation. SNF1LK2 regulates the early phase of insulin signaling by phosphorylating IRS-1 on Ser794. Human SNF1LK2 is 926 amino acids (aa) in length and contains a protein kinase domain (aa 20-271) with an ATP binding site (Lys49) and a catalytic loop (aa 140-149), followed by a phosphorylation activation site at Thr175, a UBA (ubiquitin-associated) domain (aa 295-335) and another PKA-dependent phosphorylation site at Ser587.