

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human SREBP2 in ELISA and Western Blot.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 751512
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SREBP2 Leu242-Asp450 Accession # Q12772
<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 as a 0.2 µm filtered solution in PBS.

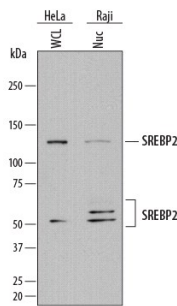
**APPLICATIONS**

**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>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

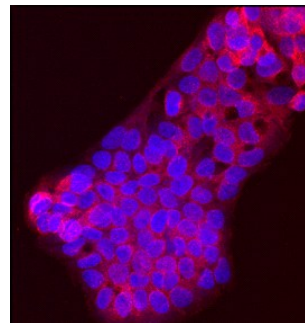
**DATA**

**Western Blot**



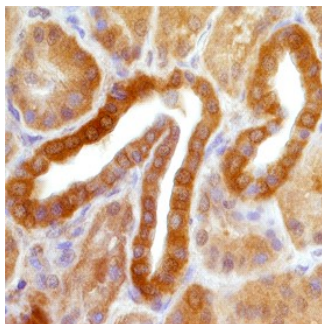
**Detection of Human SREBP2 by Western Blot.** Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and Raji human Burkitt's lymphoma cell line. Gels were loaded with 30 µg of whole cell lysate (WCL) and 15 µg of nuclear extract (Nuc). PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human SREBP2 Monoclonal Antibody (Catalog # MAB7119) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for SREBP2 at approximately 125 kDa and 55-65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**



**SREBP2 in HepG2 Human Cell Line.** SREBP2 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Mouse Anti-Human SREBP2 Monoclonal Antibody (Catalog # MAB7119) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**Immunohistochemistry**



**SREBP2 in Human Kidney.** SREBP2 was detected in immersion fixed paraffin-embedded sections of human kidney using Mouse Anti-Human SREBP2 Monoclonal Antibody (Catalog # MAB7119) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to epithelial cells in convoluted tubules. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 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

SREBP2 (Sterol Regulatory Element-Binding Protein 2; also bHLHD2 and SREBF2) is a 120-125 kDa member of the SREBP family of proteins. It is ubiquitously expressed and found in the intracellular membrane fraction of cells. SREBP2 is a transcriptional factor initially embedded in the ER as an inactive precursor associated with SCAP. When necessary, SCAP mediates SREBP2 transfer to the Golgi, where two resident proteases remove the N-terminus from SREBP2, and the N-terminus is transported into the nucleus. Here, SREBP2 acts as a transcription factor, activating the LDLR and cholesterol synthesis genes. The human SREBP2 precursor is an 1141 amino acid (aa) two transmembrane protein whose N- and C-termini are cytoplasmic. The two cytoplasmic domains span aa 1-479 and 555-1141, respectively. Proteolytic cleavage between Leu484-Cys485 generates the 64-66 kDa SREBP2 transcription factor. This fragment contains a bHLH DNA binding domain (aa 330-380) and one Leu zipper region (aa 381-401). Homodimerization of SREBP2 is necessary for nuclear translocation. There is one potential isoform that shows a deletion of aa 274-276 coupled to a 96 aa substitution for aa 580-1141. A second isoform (known in rodent) shows a premature truncation after Val463 and runs at 55 kDa in SDS-PAGE. Over aa 242-450, human SREBP2 shares 97% aa identity with mouse SREBP2.