

**DESCRIPTION**

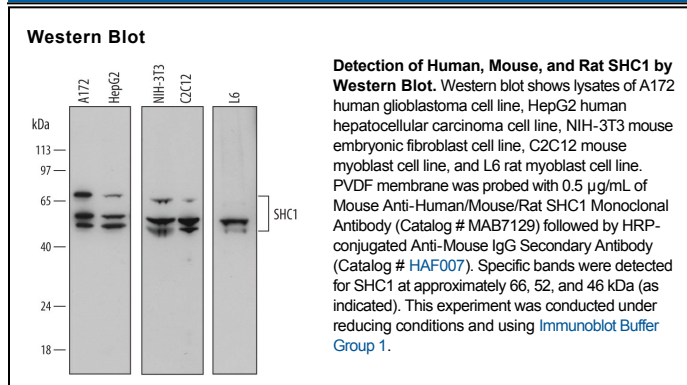
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human SHC1 in direct ELISAs and human, mouse, and rat SHC1 in Western blots. In direct ELISAs, no cross-reactivity with recombinant human SHC3 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 725001
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SHC1 Pro379-Val470, Trp488-Val579 Accession # P29353
<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>	0.5 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<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**

SH2 domain-containing transforming protein C1 (SHC1), also known as ShcA, is a cytoplasmic adaptor protein that is important in the signal transduction from growth factor, cytokine, and lymphocyte antigen receptors. SHC1 contains a PTB/PID domain (aa 156-339), a collagen homology domain (aa 340-487), and an SH2 domain (aa 488-579). Alternate splicing generates additional isoforms that differ in the extent of N-terminal truncation. Activation of SHC1 by phosphorylation at Ser239, Ser240, and Tyr317 enables Shc1 to interact with the GRB2/SOS complex, leading to the transcription of genes involved in mitogenesis and apoptosis. The p46 and p52 isoforms promote mitogenic signaling, while the p66 isoform promotes apoptosis and functions as a negative regulator of SHC1-mediated mitogenic signal transduction. Within aa 488-579, human SHC1 shares 100% aa sequence identity with mouse and rat SHC1.