

DESCRIPTION

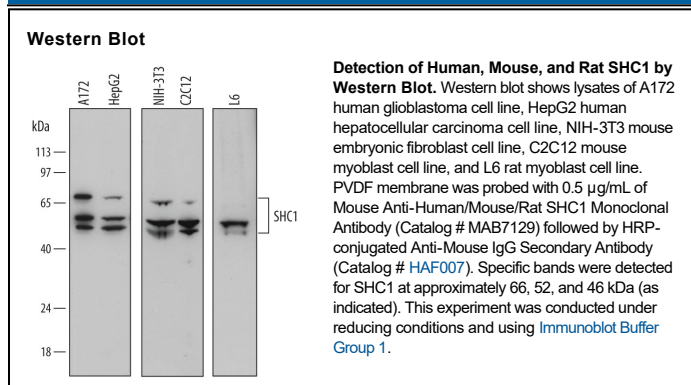
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human SHC1 in direct ELISAs and human, mouse, and rat SHC1 in Western blots. In direct ELISAs, no cross-reactivity with recombinant human SHC3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 725001
Purification	Protein A or G purified from hybridoma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

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.