

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
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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