

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SHB in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SHB Ala2-Phe128 Accession # Q15464
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

Immunohistochemistry 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

SHB (SH2 homology protein in B/β-cells) is a 55-59 kDa cytoplasmic adaptor protein that serves as a link between phosphotyrosine residues and downstream signaling pathways. SHB is ubiquitously expressed, and binds tyrosine kinase receptors such as FGFR1, VEGFR2, and the TCR (ζ-chain) following their activation. It is highly modular, and through a variety of motifs, is able to bind multiple, structurally unrelated proteins that collectively generate a signal transduction network. Human SHB is 509 amino acids (aa) in length. It contains an N-terminal Pro-rich region that binds SH3 domain-containing proteins (aa 19-45), a central PTB domain that binds select aa motifs, and a C-terminal SH2 domain that interacts with phosphotyrosines (aa 410-504). There are at least nine utilized phosphorylation sites. There are two isoform variants. One is 66-68 kDa in size, and possesses an 87 aa Pro-rich N-terminal extension. This MW may increase to 77-80 kDa following posttranslational processing. A second variant shows an 18 aa substitution for aa 280-509. Over aa 2-128, human SHB shares 91% aa identity with mouse SHB.

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