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**Product Data Sheet**


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Product Name: SYK Human

Cat. No.: GP22631

Batch No.: 1

**Product Data**

Purity &gt;98% Source HEK 293 cells.

Physical Appearance solid Shipping Condition Shipped with Ice Packs.

Synonyms Tyrosine-protein kinase SYK; Spleen tyrosine kinase; p72-Syk; SYK.

MHHHHHHHDYKDDDDKKLMASSGMADSANHLPFFFGNITREEAEDYLVQGGMSDGL  
 YLLRQSRNYLGGFALSVAHGRKAHHYTIERELNGTYAIAGGRTHASPADLCHYHSQES  
 DGLVCLLKKPFNRPQGVQPKTGFEDLKENLIREYVKQTTWNLQGQALEQAIISQKPQL  
 EKLIATTAHEKMPWFHKGISREESEQIVLIGSKTNGKFLIRARDNNGSYALCLLHEGKV  
 LHYRIDKDKTGKLSIPEGKKFDTLWQLVEHYSYKADGLLRVLTVPCQKIGTQGNVNF

Amino Acid Sequence GRPQLPGSHPATWSAGGIISRIKSYSFPKPGHRKSSPAQGNRQESTVSFNPEPELA  
 PWAADKGPQREALPMDTEVYESPYADPEEIRPKEVYLDRKLLTLEDKELGSGNFGTV  
 KKGYYQMKKVVKTVAVKILKNEANDPALKDELLAEANVMQQLDNPYIVRMIGICEAES  
 WMLVMEMAELGPLNKYLQQRHVKDKNIIELVHQVSMGMKYLEESNFVHRDLAARN  
 VLLVTQHAKISDFGLSKALRADENYYKAQTHGKWPVKWYAPECINYYKFSSKSDVW  
 SFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMGCPAGCPREMYDLMNLCWT  
 YDVENRPGFAAVELRLRNYYYDVVN.

Formulation SYK protein is supplied in 50mM Tris pH 7.5, 300mM NaCl and 10% Glycerol.

**Introduction**

Spleen Tyrosine Kinase (SYK) belongs to the family of non-receptor type Tyr protein kinases. The SYK protein is extensively expressed in hematopoietic cells and is involved in coupling activated immunoreceptors to downstream signaling events which mediate diverse cellular responses, including proliferation, differentiation, and phagocytosis. SYK is considered to be a modulator of epithelial cell growth and a likely tumor suppressor in human breast carcinomas. SYK is a positive effector of BCR-stimulated responses. SYK connects the B-cell antigen receptor (BCR) to the utilization of calcium ion either through a phosphoinositide 3-kinase-dependent pathway, when not phosphorylated on tyrosines of the linker region, or through a phospholipase C-gamma-dependent pathway, when

**Caution: Product has not been fully validated for medical applications. For research use only.**

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phosphorylated on Tyr-348 and Tyr-352. Therefore the differential phosphorylation of Syk can define the pathway by which BCR is coupled to the regulation of intracellular calcium ion (By similarity). SYK also phosphorylates USP25 and regulates its intracellular levels.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.

### Background

SYK Human Recombinant full length protein (1-635 aa) produced in HEK 293 cells with an N-terminal His-Flag tag, having a molecular weight of 74.25kDa. Human SYK is purified by proprietary chromatographic techniques.

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