

ProQinase™ SYK aa356-635

spleen associated tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: SYK

Synonyms: /

Product No.: 0860-0000-1

Lot: 004

Description: Human SYK, C-terminal fragment, amino acids E₃₅₆-N₆₃₅ (as in [NCBI/Protein](#) entry NP_003168.2), C-terminal HIS₆ tagged protein, expressed in Sf9 insect cells

Product identity: SYK Lot 004, was confirmed as SYK by specific Western Blotting

Theoretical MW_{Fusion Protein}: 33,651 Da Da

Expression host: Sf9 insect cells

Purification: Immobilized Metal Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 20 % glycerol

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.781µg/µl

(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

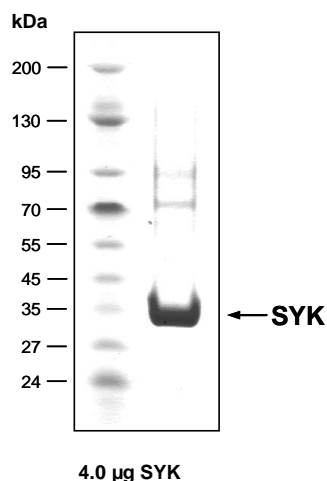
Specific kinase activity (P_i transfer): 1046 pmol/µg x min

ATP-K_M: 9.5 µM

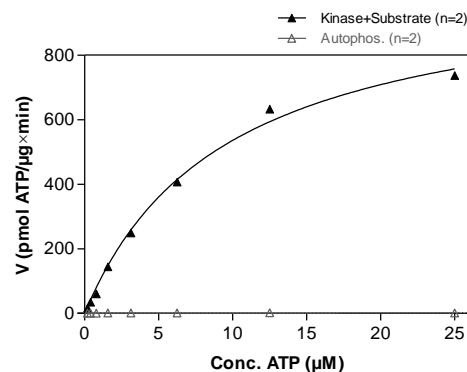
Additional assay technology:

SYK aa356-635 Lot 004 was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

SYK Lot 004: Coomassie stain



SYK Lot 004: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg / ml PEG_{20,000}
 - ATP (variable)
 - Substrate: Poly(Glu:Tyr)_{4:1} (Sigma P-0275), 2.5 µg/ml
 - SYK: 2 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

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SYK aa356-635 Recombinant Fusion Protein Amino Acid Sequence							
1	MEEIRPKEVY	LDRKLLTLED	KELGSGNFGT	VKKGYYQMKK	VVKTAVAKIL	KNEANDPALK	60
61	DELLAEANVM	QQLDNPYIVR	MIGICEAESW	MLVMEMAELG	PLNKYLQQNR	HVKDKNIIEI	120
121	VHQVSMGMKY	LEESNFVHRD	LAARNVLLVT	QHYAKISDFG	LSKALRADEN	YYKAQTHGKW	180
181	PVKWYAPECI	NYYKFSSKSD	VWSFGVLMWE	AFSYGQKPYR	GMKGSEVTAM	LEKGERMGCP	240
241	AGCPREMYDL	MNLCWTYDVE	NRPGFAAVEL	RLRNYYDVV	NEGHHHHHH		300

blue: SYK fragment Red: HIS6-tag

SYK wt ¹ Amino Acid Sequence							
1	MASSGMADSA	NHLPFFFGNI	TREEAEDYLV	QGGMSDGLYL	LRQSRNYLGG	FALSVAHGRK	60
61	AHHTIEREL	NGTYAIAGGR	THASPADLCH	YHSQESDGLV	CLLKKPFNRP	QGVQPKTGPF	120
121	EDLKENLIRE	YVKQTWNLQG	QALEQAIISQ	KPQLEKLIAT	TAHEKMPWFH	GKISREESEQ	180
181	IVLIGSKTNG	KFLIRARDNN	GSYALCLLHE	GKVLHYRIDK	DKTGKLSIPE	GKKFDTLWQL	240
241	VEHYSYKADG	LLRVLTVPCQ	KIGTQGNVNF	GGRPQLPGSH	PATWSAGGII	SRIKSYSPFK	300
301	PGHRKSSPAQ	GNRQESTVSF	NPYEPELAPW	AADKGPQREA	LPMDTEVYES	PYADPEEIRP	360
361	KEVYLDRLKLL	TLEDKELGSG	NFGTVKKGYY	QMKKVVKTV	VKILKNEAND	PALKDELLAE	420
421	ANVMQQLDNP	YIVRMIGICE	AESWMLVMEM	AELGPLNKYL	QQNRHVKDN	IIELVHQVSM	480
481	GMKYLEESNF	VHRDLAARNV	LLVTQHYAKI	SDFGLSKALR	ADENYYKAQT	HGKWPVKWYA	540
541	PECINYYKFS	SKSDVWSFGV	LMWEAFSYGQ	KPYRGMKGSE	VTAMLEKGER	MGCPAGCPRE	600
600	MYDLMLNCWT	YDVENRPGFA	AVELRLRNY	YDVVN			660

blue: SYK sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_003168.2