

APE275Hu01 100µg
Active Active Spleen Tyrosine Kinase (SYK)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Asp374~Asn635

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 8.4

Predicted Molecular Mass: 34.0kDa

Accurate Molecular Mass: 34kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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DKELGSG NFGTVKGGYY QMKKVVKTVA
VKILKNEAND PALKDELLAE ANVMQQLDNP YIVRMIGICE AESWMLV MEM
AELGPLNKYL QQNRHVKDKN IIELVHQVSM GMKYLEESNF VHRDLAARNV
LLVTQHYAKI SDFGLSKALR ADENYYKAQT HGKWPVKWYA PECINYYKFS
SKSDVWSFGV LMWEAFSYGQ KPYRGMKGSE VTAMLEKGER MGCPAGCPRE
MYDLMNLCWT YDVENRPGFA AVELRLRNY YDVVN
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[ACTIVITY]

Spleen Tyrosine Kinase (SYK) is a member of the SYK family of tyrosine kinases. These non-receptor cytoplasmic tyrosine kinases share a characteristic dual SH2 domain separated by a linker domain. Within B and T cells respectively, SYK and Zap-70 transmit signals from the B-Cell receptor and T-Cell receptor. SYK plays a similar role in transmitting signals from a variety of cell surface receptors including CD74, Fc Receptor, and integrins. Besides, Sialic Acid Binding Ig Like Lectin 1 (SIGLEC2) has been identified as an interactor of SYK, thus a binding ELISA assay was conducted to detect the interaction of recombinant human SYK and recombinant human SIGLEC2. Briefly, SYK were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to SIGLEC2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-SYK pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of SYK and SIGLEC2 was shown in Figure 1, and this effect was in a dose dependent manner.

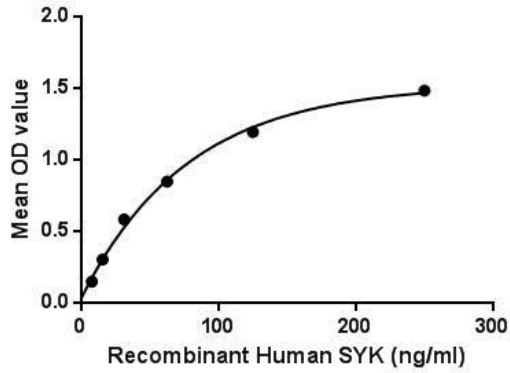


Figure 1. The binding activity of SYK with SIGLEC2.

[IDENTIFICATION]

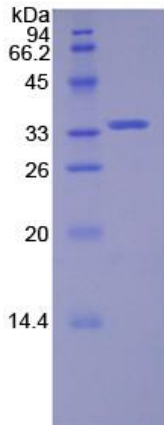


Figure 2. SDS-PAGE

Sample: Active recombinant SYK, Human

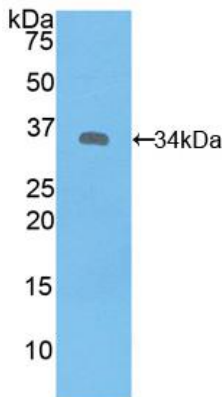


Figure 3. Western Blot

Sample: Recombinant SYK, Human;

Antibody: Rabbit Anti-Human SYK Ab (PAE275Hu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.