

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SYK (SH2D2 Domain) in direct ELISAs. In direct ELISAs, 100% cross-reactivity with the SH2D2 domain of recombinant human (rh) ZAP70 is observed and no cross-reactivity with the SH2 domain of rhCSK is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 720402
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human SYK (SH2D2 Domain) Trp168-Cys259 Accession # P43405
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

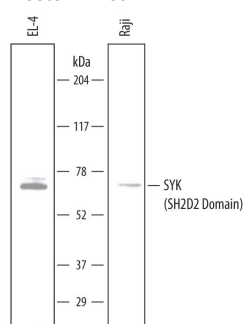
APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Simple Western	20 µg/mL	See Below
Knockout Validated	SYK is specifically detected in the parental THP-1 cell line, but is not detectable in knockout THP-1 cell line.	

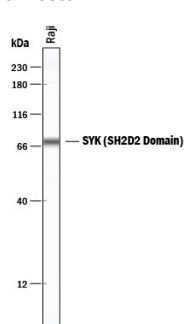
DATA

Western Blot

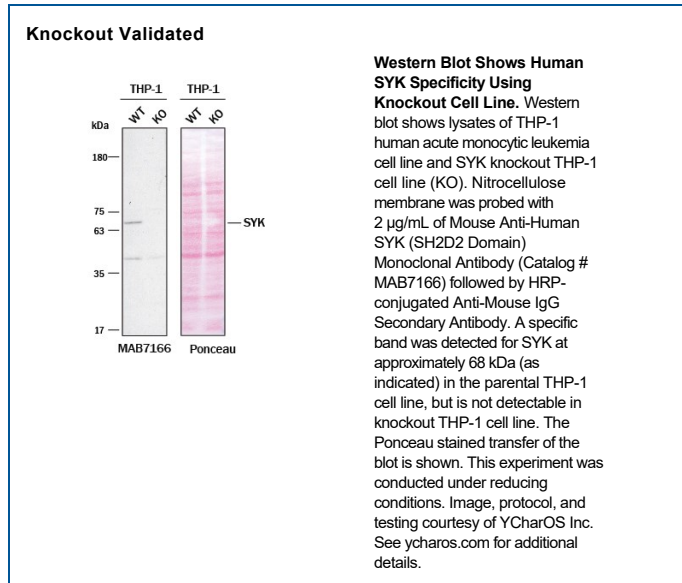
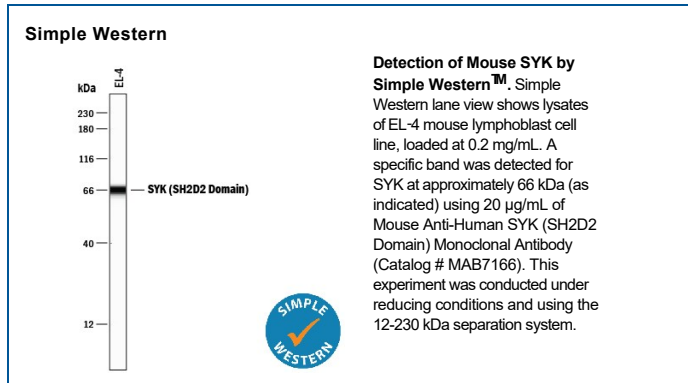


Detection of Human and Mouse SYK (SH2D2 Domain) by Western Blot. Western blot shows lysates of EL-4 mouse lymphoblast cell line and Raji human Burkitt's lymphoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human SYK (SH2D2 Domain) Monoclonal Antibody (Catalog # MAB7166) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for SYK (SH2D2 Domain) at approximately 72 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Raji human Burkitt's lymphoma cell line 0.2 by Simple Western™. Simple Western lane view shows lysates of Raji human Burkitt's lymphoma cell line, loaded at 0.2 mg/mL. A specific band was detected for SYK at approximately 66 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human SYK (SH2D2 Domain) Monoclonal Antibody (Catalog # MAB7166). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution Sterile PBS to a final concentration of 0.5 mg/mL.

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

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

SYK (spleen tyrosine kinase) is a 70-80 kDa cytoplasmic non-receptor protein tyrosine kinase of the protein kinase superfamily and the SYK/ZAP-70 subfamily of proteins. The 635 amino acid (aa) human SYK contains two SH2 domains (aa 14-106 and aa 168-259), and one protein kinase domain (aa 371-631). A splicing variant produces a second isoform lacking aa 371-631. Within the second SH2 domain (SH2D2), human SYK shares 94% aa sequence identity with mouse and rat SYK. SYK is widely expressed in hematopoietic cells (notably B lymphocytes), where it couples immunoglobulin receptors to downstream events, such as proliferation, differentiation, and phagocytosis.