

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Lyp in Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 340113
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Lyp Ser306-Ser684 Accession # Q9Y2R2
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.

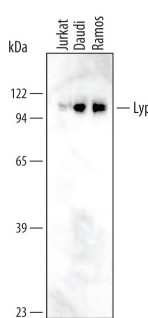
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

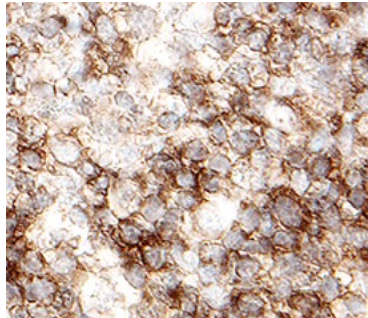
DATA

Western Blot



Detection of Human Lyp by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, Daudi human Burkitt's lymphoma cell line, and Ramos human Burkitt's lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Lyp Monoclonal Antibody (Catalog # MAB3428) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Lyp at approximately 108 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunohistochemistry



Lyp in Human Lymph Node. Lyp was detected in immersion fixed paraffin-embedded sections of human lymph node using 25 µg/mL Mouse Anti-Human Lyp Monoclonal Antibody (Catalog # MAB3428) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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. <ul style="list-style-type: none"> • 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

Lymphoid phosphatase (Lyp), also called LyPTP, Protein Tyrosine Phosphatase, Nonreceptor-type 22 (PTPN22), and PEST-domain Phosphatase (PEP), dephosphorylates tyrosine residues in proteins. Found primarily in bone marrow and lymphoid cell lines, an R620W gain-of-function mutation in Lyp has been associated with susceptibility to autoimmune diseases such as type I diabetes, rheumatoid arthritis, and lupus erythematosus. Mature PEP knockout mice have an excess of CD8 positive T cells and an exaggerated antigen-induced proliferative response.