

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LIMD1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 919330
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human LIMD1 Met1-Val143 Accession # Q9UGP4
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.

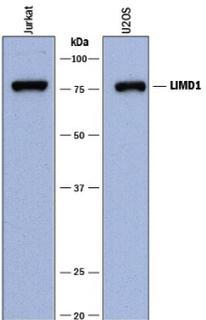
APPLICATIONS

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

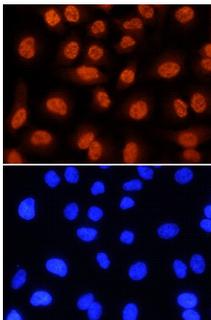
DATA

Western Blot



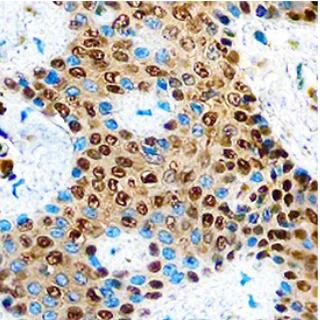
Detection of Human LIMD1 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line and U2OS human osteosarcoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human LIMD1 Monoclonal Antibody (Catalog # MAB8494) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for LIMD1 at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



LIMD1 in HeLa Human Cell Line. LIMD1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human LIMD1 Monoclonal Antibody (Catalog # MAB8494) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



LIMD1 in Human Breast Cancer Tissue. LIMD1 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Mouse Anti-Human LIMD1 Monoclonal Antibody (Catalog # MAB8494) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei. 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

Human LIM Domain-containing Protein 1 (LIMD1) is a ubiquitous tumor suppressor 72 kDa protein which has three LIM zinc-binding domains. Via its LIM domains LIMD1 interacts with TRAF6, SNAI2/SLUG and SCRT1 (via SNAG domain) proteins. It also interacts with SQSTM1 and RB1, EIF4E, AGO1, AGO2, DCP2, DDX6, LATS1, LATS2, EGLN1/PHD2, EGLN2/PHD1 and EGLN3/PHD3 proteins. LIMD1 interacts with isoform 1 and isoform 3 of VHL and with SNAI1 proteins. LIMD1 localized predominantly in the cytoplasm but shuttles between cytoplasm and nucleus where it can be often detected: strong nuclear expression is indicative for a low-tumor grade and a better patient prognosis. Down-regulation of LIMD1 in the nuclei of neoplastic cells, is the indication for a poor prognosis of breast cancer. The correlation exists between LIMD1 and IRF4 in cell lines derived from lymphomas. In ulcerative epithelium it was found that LIMD1 has a reduced nuclear expression. LIMD1 is encoded at chromosome 3p21.3, a region which is deleted in many solid tumors and LIMD1 is down-regulated in the majority of human lung cancer samples. LIMD1 also is a regulator of both bone osetoclast and bone osteoblast development and function. Human LIMD1 shares 77% aa sequence identity with both rat and mouse LIMD1.