

DESCRIPTION

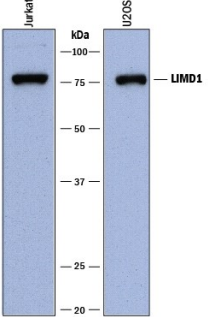
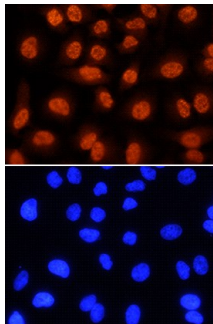
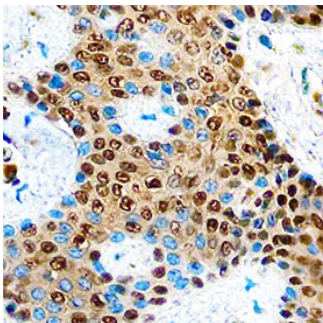
Species Reactivity	Human
Specificity	Detects human LIMD1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 919330
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human LIMD1 Met1-Val143 Accession # Q9UGP4
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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

<p>Western Blot</p>  <p>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.</p>	<p>Immunocytochemistry</p>  <p>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.</p>
<p>Immunohistochemistry</p>  <p>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.</p>	

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.