Human RB1 Antibody

Monoclonal Mouse IgG_1 Clone # 607121

Catalog Number: MAB6495

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human RB1 in Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 607121
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E.coli*-derived recombinant human RB1 Lys240-Asn406 Accession # P06400
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.

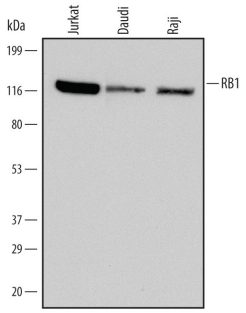
APPLICATIONS

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	0.1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Simple Western	1 µg/mL	See Below

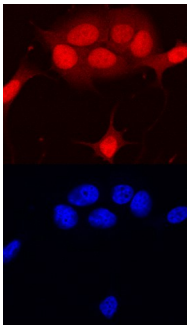
DATA

Western Blot



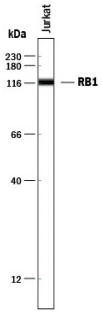
Detection of Human RB1 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, Daudi human Burkitt's lymphoma cell line, and Raji human Burkitt's lymphoma cell line. PVDF Membrane was probed with 0.1 µg/mL of Human RB1 Monoclonal Antibody (Catalog # MAB6495) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for RB1 at approximately 120 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



RB1 in MCF-7 Human Cell Line. RB1 was detected in immersion fixed MCF-7 human breast cancer cell line using Human RB1 Monoclonal Antibody (Catalog # MAB6495) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; 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.

Simple Western



Detection of Human RB1 by Simple Western™. Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line, loaded at 0.2 mg/mL. A specific band was detected for RB1 at approximately 120 kDa (as indicated) using 1 µg/mL of Mouse Anti-Human RB1 Monoclonal Antibody (Catalog # MAB6495). 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.

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BACKGROUND

Retinoblastoma 1 protein (RB-1; also retinoblastoma-associated protein, pp110, and p105-Rb) is a 110 kDa tumor suppressor gene and member of the retinoblastoma protein family. Human RB-1 is 928 amino acids in length. The protein contains a Pocket domain (aa 373-771), which is comprised of two other domains, domain A (aa 373-573) and domain B (aa 640-771), and a “spacer” (aa 580-639). The Pocket domain binds to threonine-phosphorylated domain C (aa 771-928), which thereby prevents interaction with heterodimeric E2F/DP transcription factor complexes. Human RB-1 is 90% aa identical to mouse RB-1. RB-1 is expressed in the retina. The underphosphorylated, active form of RB-1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. Defects in RB-1 lead to the childhood cancer retinoblastoma.

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