

# Human/Mouse/Rat Keap1 Antibody

Monoclonal Mouse IgG<sub>2B</sub> Clone # 333116 Catalog Number: MAB3024

DESCRIPTION Species Reactivity Human/Mouse/Rat Specificity Detects human, mouse and rat Keap1 in Western blots. Monoclonal Mouse  $IgG_{2B}$  Clone # 333116 Source Purification Protein A or G purified from hybridoma culture supernatant E. coli-derived recombinant human Keap1 Immunogen Ala90-lle250 Accession # Q14145 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

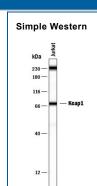
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below
Simple Western	20 μg/mL	See Below
Knockout Validated	Keap1 is specifically detected in Jurkat human acute T cell leukemia parental cell line but is not detectable in Keap1 knockout Jurkat cell line.	

### DATA

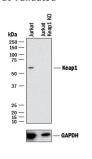
# Western Blot KDa 122— 94— 65— 39— 23— 19—

Detection of Human/Mouse/Rat Keap1 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, Raji human Burkitt's lymphoma cell line, Neuro-2A mouse neuroblastoma cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 1 µg/mL of Human/Mouse/Rat Keap1 Monoclonal Antibody (Catalog # MAB3024) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Keap1 at approximately 66 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 4.



Detection of Human Keap1 by Simple Western M. 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 Keap1 at approximately 75 kDa (as indicated) using 20 μg/mL of Mouse Anti-Human/Mouse/Rat Keap1 Monoclonal Antibody (Catalog # MAB3024). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

## Knockout Validated



Western Blot Shows Human Keap1 Specificity by Using Knockout Cell Line. Western blot shows lysates of Jurkat human acute T cell leukemia parental cell line and Keap1 Jurkat cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat Keap1 Monoclonal Antibody (Catalog # MAB3024) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Keap1 at approximately 66 kDa (as indicated) in the parental Jurkat cell line, but is not detectable in knockout Jurkat cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1

### 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.

- 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

Kelch-like ECH-associated protein 1 (Keap1) is a 624 amino acid, 69 kDa protein which interacts with the transcription factor NF-E2-related factor 2 (Nrf2). Keap1 represses Nrf2 function by sequestering Nrf2 in the cytoplasm. Keap1 contains an N-terminal BTB domain and six C-terminal KELCH domains (aa 327-611) that interact with Nrf2. Dissociation of the two proteins in response to redox-sensitive cell stress is followed by the translocation of Nrf2 to the nucleus and transcription of detoxifying/oxidative stress enzyme genes.

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