Human Mcl-1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 542808

Catalog Number: MAB828

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Mcl-1.
Source	Monoclonal Mouse IgG_{2B} Clone # 542808
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Mcl-1 Met1-Gly230 Accession # Q07820
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.

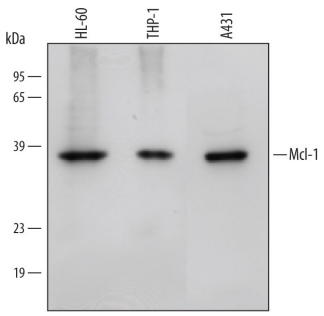
APPLICATIONS

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	Immersion fixed paraffin-embedded sections of human lymphoma
Knockout Validated	Mcl-1 is specifically detected in A431 human epithelial carcinoma parental cell line but is not detectable in Mcl-1 knockout A431 cell line.	

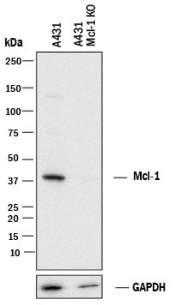
DATA

Western Blot



Detection of Human Mcl-1 by Western Blot. Western blot shows lysates of HL-60 human acute promyelocytic leukemia cell line, THP-1 human acute monocytic leukemia cell line, and A431 human epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Mcl-1 Monoclonal Antibody (Catalog # MAB828) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Mcl-1 at approximately 38 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Knockout Validated



Western Blot Shows Human Mcl-1 Specificity by Using Knockout Cell Line. Western blot shows lysates of A431 human epithelial carcinoma parental cell line and Mcl-1 knockout A431 cell line (KO). PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Mcl-1 Monoclonal Antibody (Catalog # MAB828) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Mcl-1 at approximately 40 kDa (as indicated) in the parental A431 cell line, but is not detectable in knockout A431 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.

BACKGROUND

Mcl-1 (myeloid cell leukemia-1; also known as Bcl-2-like protein 3) is a member of the Bcl-2 family of proteins. Alternative splicing creates two distinct isoforms: 40 kDa Mcl-1L (long; 350 amino acids (aa)) enhances cell survival by inhibiting apoptosis, while 32 kDa Mcl-1S (short; 271 aa with divergence in the last 41 aa) promotes apoptosis. The elimination of Mcl-1L is a required step for DNA damage-induced apoptosis. Mcl-1 can be modified by phosphorylation on S121 and T163 by JNK, which triggers apoptosis, or polyubiquitination, which enhances degradation of Mcl-1. Within the first 230 aa, human Mcl-1 shares ~68% aa identity with mouse and rat Mcl-1.

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