Human TOP2A Antibody

Monoclonal Mouse IgG_{2A} Clone # 680130

Catalog Number: MAB6540

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TOP2A in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant TOP2B from human or mouse is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 680130
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E.coli*-derived recombinant human TOP2A Phe1174-Phe1531 Accession # P11388
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.

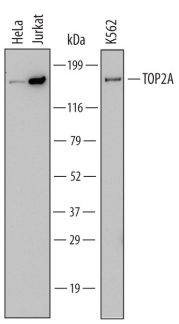
APPLICATIONS

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	0.5 µg/mL	See Below

DATA

Western Blot



Detection of Human TOP2A by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, Jurkat human acute T cell leukemia cell line, and K562 human chronic myelogenous leukemia cell line. PVDF Membrane was probed with 0.5 µg/mL of Human TOP2A Monoclonal Antibody (Catalog # MAB6540) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for TOP2A at approximately 170 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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.

BACKGROUND

DNA topoisomerase 2-alpha (TOP2A; also DNA topoisomerase II, alpha isozyme) is a 170 kDa member of the type II topoisomerase family. Human TOP2A is 1531 amino acids (aa) in length, and splicing variants produce three additional isoforms which have substitutions following Lys321, Gln355, or Ala401. TOP2A contains a histidine kinase-like ATPases domain (aa 80-193), a TopoIIA Trans ScTopoIIA domain (aa 265-417), a TOPRIM TopoIIA: topoisomerase-primase domain (aa 455-575), a DNA Topoisomerase IV domain (aa 697-1169), and a NES (aa 1018-1028). There are multiple potential Ser/Thr phosphorylation sites. Human TOP2A shares 89% aa sequence identity with mouse TOP2A.