Datasheet for ABIN967555

anti-Topoisomerase I antibody

1 Image | 2 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	Topoisomerase I (TOP1)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Topoisomerase I antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Brand:	BD Pharmingen™
Clone:	C-21
Isotype:	IgM
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Topoisomerase I (TOP1)
Alternative Name:	DNA Topoisomerase I (TOP1 Products)
Target Type:	Viral Protein
Background:	DNA damage may be caused by various environmental factors, including radiation, mutagenic chemicals and copy errors which occur during DNA replication. The correction of DNA damage, so called proofreading functions of the cell, is achieved by numerous excision-repair enzymes. Topoisomerases alter the helical structure of DNA by introducing the transient breaking and rejoining of DNA strands, allowing other excision-repair enzymes to correct DNA errors. Topoisomerase I (Topo I) is a ubiquitous, soluble enzyme whose expression is fairly constant throughout the cell cycle. The related enzyme, Topo II, is a primarily insoluble structural protein whose expression varies between cell types and during the cell cycle. In addition to its role in DNA mismatch repair, Topo I displays kinase activity, phosphorylating serine-arginine rich (SR) splicing factors, and perhaps regulating gene expression by changing the splicing pattern of structural genes. DNA Topo I migrates at a molecular weight of 100 kDa in SDS-PAGE. Clone C-21 recognizes human DNA Topoisomerase I. The antibody is routinely tested by western blot analysis of A-431 cell lysates.
Molecular Weight:	100 kDa
Pathways:	Caspase Cascade in Apoptosis, Stem Cell Maintenance

Application Details

Application Notes:	The C-21 antibody is recommended for western blot analysis (1-2 µg/ml). A-431 human epidermal carcinoma cells (ATCC CRL-1555) or K562 human leukemia cells (ATCC CCL-243) may be used as a positive control for this application.
Comment:	Related Products: ABIN967389, ABIN968533
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:	Tazi, Rossi, Labourier, Gallouzi, Brunel, Antoine: "DNA topoisomerase I: customs officer at the border between DNA and RNA worlds?" in: **Journal of molecular medicine (Berlin, Germany)**, Vol. 75, Issue 11-12, pp. 786-800, (1998) (PubMed). Sugimoto, Tsukahara, Oh-hara, Isoe, Tsuruo: "Decreased expression of DNA topoisomerase I in camptothecin-resistant tumor cell lines as determined by a monoclonal antibody." in: **Cancer research**, Vol. 50, Issue 21, pp. 6925-30, (1990) (PubMed).

Images

Western Blotting

Image 1. Western blot analysis of DNA Topoisomerase I. Lysate from A-431 human epidermal carcinoma cell was probed with anti-human DNA Topoisomerase I (ABIN967555) at 1.0 (lane 1), 0.2 (lane 2), and 0.04 µg/ml (lane 3). Clone C-21 identifies Topo I as an ~100 kDa band.