Topoisomerase I Drug Screening Kit

Topoisomerase I introduces transient nicks in DNA at specific sites. Detection of these transient DNA nicks requires trapping the enzyme on DNA in a nicked intermediate complex using protein denaturants. The resulting covalent DNA/topo I complexes contain nicked open circular DNA which can be detected by agarose gel electrophoresis (with ethidium bromide). Trapping nicked intermediates is relatively inefficient; however, inhibitors, such as the natural product camptothecin, stabilize the intermediate and lead to an increase in the nicked DNA product. This forms the basis for a mechanistic drug screen designed to allow detection of agents that affect topoisomerase I by stabilizing the cleaved intermediate complex. The TopoGEN Topo I Drug Screening Kit is designed to allow the investigator to quickly identify novel inhibitors of topoisomerase I. The kit will allow detection of novel compounds that either stabilize the nicked intermediate or otherwise inhibit catalytic activity of topoisomerase I.

Ordering Information

Order Online »

TOP-TG1018-1	100 assays

Manuals, SDS & CofA

View Online »

Handling & Storage

Short Term Storage +4°C

Long Term Storage -20°C

Shipping Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Contents

Kit Contents: (representative for 100 assay kit size)
-Supercoiled plasmid substrate DNA, 25 µg
-Relaxed and nicked plasmid DNA markers
-10X Topoisomerase I assay/cleavage buffer, 300µl
-Sodium dodecyl sulfate (SDS) termination buffer (10%)
-10X gel loading dye
-Control inhibitor (Camptothecin, Prod. No. TOP-4110; lyophilized)
-Proteinase K
-Detailed instruction manual

Note: Enzyme sold separately (Prod. No. TOP-2005H-RC1)

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