

Product Description

The vial contains 10ug (TG2038-1) or 50 ug (TG2038-3) of Human Tyrosyl DNA Phosphodiesterase (Tdp2) DNA substrate suitable for assaying the enzyme using simple and rapid agarose gel electrophoresis. The native substrate for Tdp2 is the Topoisomerase 2/DNA covalent complex. We prepare the substrate using high purity hu-Top2a and biochemically form the covalent complex. Since we use kDNA catenanes to prepare the complex, the reaction product is linear kDNA which rapidly (in <math><10'</math>) resolved on an agarose gel. An outline of the assay is shown in Fig. 1. Representative assay results are shown in Fig. 2.

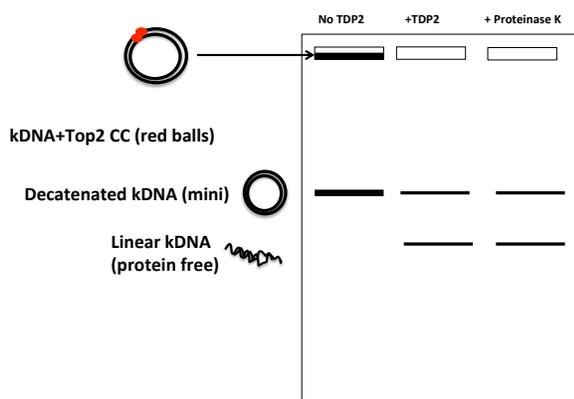


Fig. 1. TDP2 Assay Scheme. kDNA is reacted with huTop2a under conditions where the covalent complex (cc) is favored. This DNA is then used to assay for TDP2. Left most lane shows the substrate containing decatenated mini-circular DNA plus trapped Top2/DNA cc. These Top2/DNA cc contain linear DNA that cannot be resolved due to the trapped protein. The assay measures the release of the protein, which releases linear DNA into the gel.

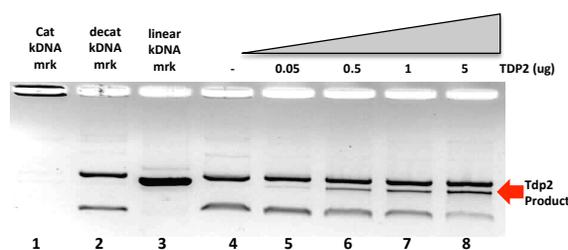


Fig. 2. Assay data. Purified Tdp2 (0 to 5ug) was incubated with kDNA/Top2 complexes (TG2038) under standard assay conditions. Reactions were terminated with SDS and analyzed on a 1% agarose gel. The linear kDNA product, released from the complex, is marked by a red arrow on the right.

Storage and Shipping Conditions

The substrate is shipped on wet ice and should be stored at -20°C . This product has a useable lifetime of about 6 months even when stored under optimal conditions at -20°C . Note that repeated freezing and thawing will accelerate loss.

Product Application and Disclaimer

This product is not licensed or approved for administration to humans or animals. It may be used with experimental animals only. The product is for in vitro research diagnostic studies only. The product is non-infectious and non-hazardous to human health. This information is based on present knowledge and does not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. TopoGEN, Inc. shall not be held liable for product failure due to mishandling and incorrect storage by end user. TopoGEN's liability is limited to credit or product replacement.