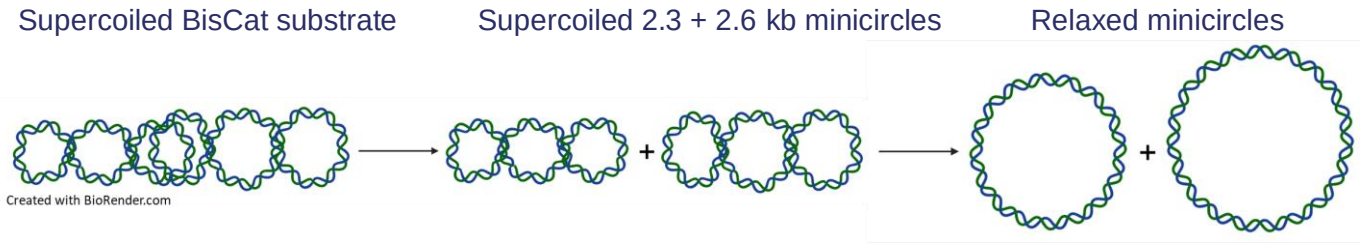
BisCat DNA Decatenation Substrate

Product Description (Product numbers B2001, B1002, B2003, B4004)

BisCat DNA decatenation substrate consists of two supercoiled, singly-linked minicircles of 2.3 and 2.6 kb. Type II topoisomerases can decatenate the substrate to produce two supercoiled minicircle products.



BisCat DNA is produced using a propriety in-house method and is supplied in TE Storage Buffer at a concentration of 200 ng/µL.
Shipped on dry ice or frozen gel packs. Store BisCat DNA at -20 °C. Stable for at least 12 months.

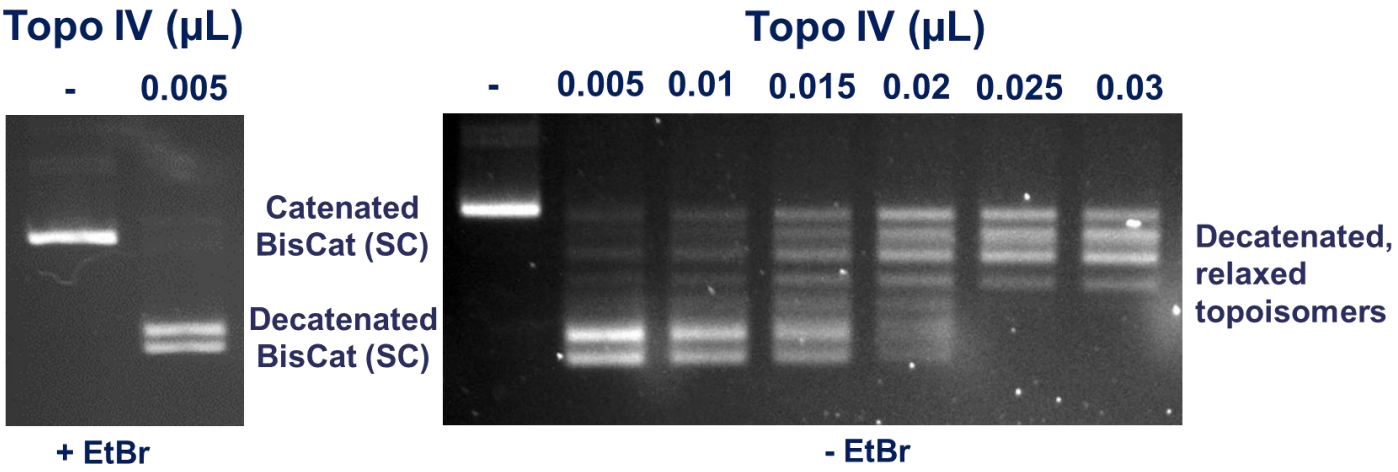
For *in vitro* laboratory research use only.

TE Storage Buffer

10 mM Tris.HCl (pH 7.5)
1 mM EDTA

Decatenation Assay

1 U of topoisomerase IV will decatenate 200 ng of BisCat when incubated in 1X Assay Buffer in a total reaction volume of 30 µl at 37 °C for 30 minutes.
Gels can be run in the presence or absence of intercalators (eg ethidium bromide (EtBr)



Quality Control

Purity was determined spectroscopically using the ratio between the OD_{260} and OD_{280} readings with no detectable decatenated products when run on a 1% (w/v) agarose gel. Each batch is tested for decatenation with purified *E.coli* topo IV**.**

Reference

Waraich, N.F., Jain, S., Colloms, S.D., Stark, W.M., Burton, N.P. and Maxwell, A. (2020). A novel decatenation assay for DNA topoisomerases using a singly-linked catenated substrate. BioTechniques 69: 357–362 (November 2020) 10.2144/btn-2020-0059