Product Testing Report

Applied Biological Materials Inc.
#1-3671 Viking Way
Richmond, BC
V6V 2J5 Canada
info@abmGood.com
www.abmGood.com

Product Testing Report

Cas9 Nickase D10A Protein Functional Test

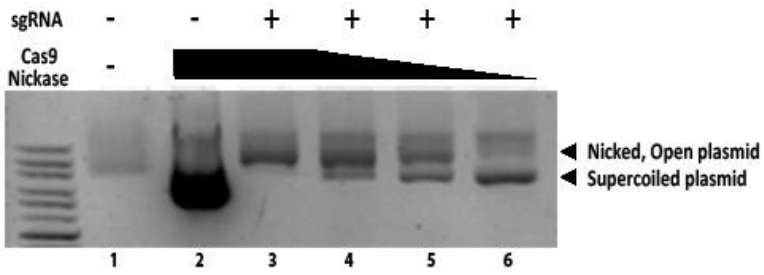
Method

To test the ability of Cas9 Nickase D10A Protein (Cat. No. K032/K132) to generate single strand breaks *in vitro*, Cas9 Nickase D10A Protein was first pre-incubated with sgRNA (200 nM) at 37°C for 30 minutes, and then added to the super-coiled plasmid (250 ng) and continued to incubate for another hour at 37°C. Varying concentration of Nickase (100 nM, 50 nM, 25 nM, 10 nM) was used to examine the dose dependent nicks in the super-coiled plasmid.

Results

Cas9 Nickase D10A Protein nicked the plasmid leading to a more open, circular plasmid, which migrated through the gel slower compared to the super-coiled DNA, in a Cas9-dose dependent manner.

Gel image showing the ability of **abm**'s Cas9 Nickase D10A Protein (Cat. No. K032/K132) to nick supercoiled plasmid to become an open circle.



Legend
Lane 1: Freeze thawed (nicked) supercoiled plasmid
Lane 2: 100 nM Cas9 Nickase D10A Protein (no sgRNA)
Lane 3: 100 nM Cas9 Nickase D10A Protein + sgRNA
Lane 4: 50 nM Cas9 Nickase D10A Protein + sgRNA
Lane 5: 25 nM Cas9 Nickase D10A Protein + sgRNA
Lane 6: 10 nM Cas9 Nickase D10A Protein + sgRNA

Conclusion

abm's Cas9 Nickase D10A Protein (Cat. No. K032/K132) makes single strand breaks efficiently at a concentration of 100 nM and leaves almost no super-coiled plasmid as compared to the lower Cas9 nickase concentrations.