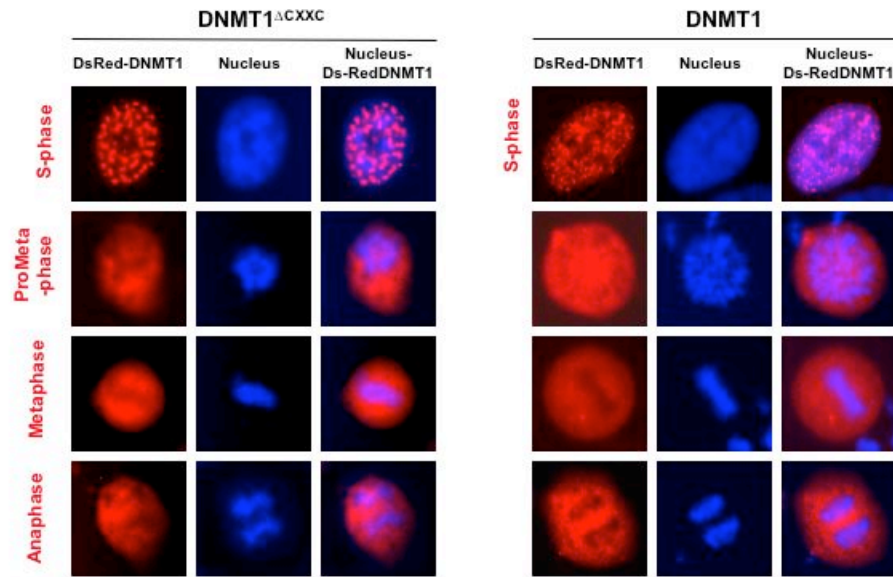


**Supplementary Information:**

Immunofluorescence and McrBC analysis of the genomic DNA: COS-7 cells were culture onto coverslips and transfected with a mixture of plasmid and Transpass D2 reagent (NEB) at a ratio of 1:3  $\mu\text{g}/\mu\text{l}$ . The cells were visualized after 48 hours using a Zeiss 200M microscope with a 63x oil objective lens 568 nm for DNMT1 and its mutant. The nuclei were stained using Hoechst 33342 and visualized at 460 nm.

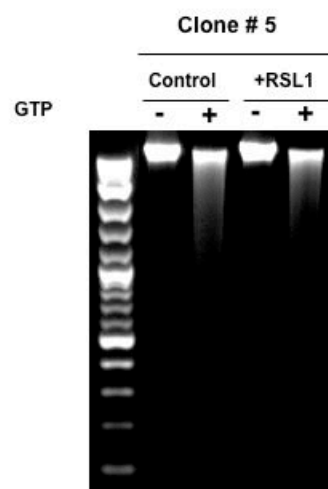
Clones (#5) expressing DNMT1<sup>ACXXC</sup> was selected for McrBC analysis. The recombinant gene was induced with RSL1 ligand (NEB) for 10 days. The genomic DNA isolation was performed using DNeasy kit (Qiagen). McrBC analysis was performed as per manufacturer's (NEB) instruction. The DNA fragments were visualized under UV light.

Supp. Fig. 1



Localization of DNMT1 during cell cycle: DNMT1 fusion is shown in red and nucleus staining using hoechst stain as blue.

## Supp. Fig. 2



MspBC analysis of DNMT1<sup>ΔCXXC</sup> clone genomic DNA: DNA isolated and digested with MspBC in the presence or absence of co-factor GTP. The control DNA is without the addition of RSL1 Ligand. The DNA samples were resolved in a 0.8% TBE-agarose gel.