Supporting Information

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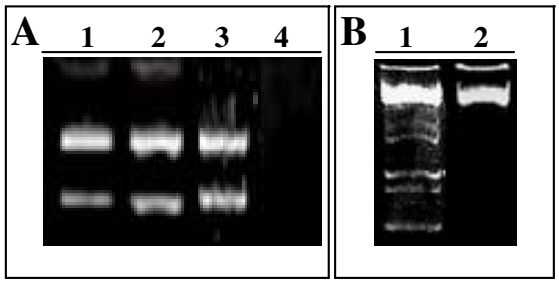

Fig. S1. Demethylation of the methylated reelin promoter by nuclear extracts is not the result of DNA degradation (*A*) but is due to the action of a DNA demethylase activity (*B*). (*A*) 20 pmol of methylated *reelin* promoter/plasmid DNA complex was incubated for 4 h in a volume of 0.2 ml with or without 0.25 mg nuclear protein extract in the presence or absence of 100 nM DNase inhibitor ATA or 10 units DNase I using conditions described in ''Demethylation Reaction.'' Template DNA was purified with phenol/chloroform extraction followed by EtOH precipitation. Despite an almost complete demethylation, no signs of DNA degradation were observed using 3% agarose gel electrophoresis. Lane 1: methylated reelin only; Lane 2: methylated reelin + ATA after incubation with nuclear extract; Lane 3: methylated reelin + ATA and DNase I, and Lane 4: methylated reelin + DNase I. (*B*) Five micrograms methylated *reelin* promoter/plasmid DNA complex were incubated with or without 0.25 mg nuclear extract for 1 h. Total DNA was extracted with phenol/chloroform followed by EtOH precipitation. The purified DNA was then incubated with or without 10 units *Hpa*II in a buffer containing 10 mM Bis Propane-HCl (pH 7.0), 10 mM $MgCl_2$, and 1 mM DTT for 1 h at 37°C. The *reelin* promoter fragment was electrophoresed on a 3% agarose gel. The methylated reelin promoter template was cut into several fragments after reaction with nuclear extract compared with the one that was not treated with nuclear extract. Lane 1, Methylated reelin + HpaII (after reaction with nuclear extract); lane 2, Methylated reelin + *Hpa*II (without reaction with nuclear extract).