



Figure 6. Recruitment of Corepressors by Methyl-CpG-binding Proteins

A hypothetical transition between an active, nonmethylated gene promoter and a repressed promoter whose silence is due to DNA methylation as mediated by MeCP2. The transition phase represents an intermediate step during which transcription is silenced and DNA methylation occurs. MeCP2 is envisaged to recruit the Sin3A histone deacetylase (HDAC) complex and histone lysine methyltransferase (HKMT) activity to the methylated sites. In addition, there is some evidence that MeCP2 can directly repress transcription by contact with the transcription initiation complex (DR). Other methyl-CpG-binding proteins interact with and potentially recruit distinct corepressors that include HKMT and/or HDAC activity.