

The interaction of H-NS with its target DNA

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H-NS is a DNA-binding protein, known to condensate DNA and to act as a transcriptional repressor on bacterial Gram-negative genes. The protein presents an N-terminal oligomerization and a C-terminal DNA-binding domain linked by a flexible region. The proposed mechanism of repression is thought to occur via binding of the protein at multiple binding sites. Through a combined approach employing molecular biology and spectroscopic techniques, we have shown some of the peculiar features of H-NS binding to its target DNA. The molecular details of this interaction will be illustrated.