Dam and Dcm Methylase

Dam Methylation

Inhibited		Not Inhibited	
Enzyme	**Sequence (5′ to 3′)**	**Enzyme**	**Sequence (5′ to 3′)**
Bcl I	T **GATCA**	*Bam*H I	G **GATCC**
*Bsp*106 I	AT **CGATC**	*Bgl* II	A **GATCT**
Cla I	GAT CGAT	*Bsp*M II	TCCGGATC
Hph I	GGTGATC	*Pvu* I	CGAT **CG**
Mbo I	**GATC**	*Sau*3A I	**GATC**
Mbo II	GAAGATC		
Nru I	GATCG **CGA**		
Taq I	T**CGA**		
Xba I	T **CTAGA**		

The dam methylase will transfer a methyl group from S-adenosylmethionine to the N6 position of the adenine residue in the sequence GATC.

Recognition sequences are indicated in **bold type**.

Dcm Methylation

Inhibited		Not Inhibited	
Enzyme	**Sequence (5′ to 3′)**	**Enzyme**	**Sequence (5′ to 3′)**
Apa I	**GGGCC/C**(A/T)GG	*Bgl* I	**GCC(A/T)GGN/NGGC**
Ava II	**G/G**(A/**T**)**CC**(A/T)GG	*Bst*N I	**CC(A/T)GG**
Bal I	**TGG/CCA**GG	*Bst*E II	**GGTNACC**(A/T)GG
Eae I	(**C/T**)**GGCCA**GG	*Pal* I	**GGCC**(A/T)GG
*Eco*O109 I	**PuGGNCC(A/T)**GG	*Kpn* I	**GGTAC/C**(A/T)GG
*Eco*R II	/**CC**(A/**T**)**GG**	*Nar* I	**GG/CGCC**(A/T)GG
Fok I	CC(A/T)**GGATGN9**/	*Sfi* I	**GGCCN4/NGGCC**(A/T)GG
Hinf I	**GPuCG**(**G/C**)**C**(A/T)GG		
*Sau*96 I	G/**GNCC**(A/T)GG		
*Scr*F I	**CC**/(A/**T**)**GG**		
Stu I	**AGG/CCT**GG		

The dcm methylase, in contrast, has been shown to methylate the internal cytosine residues in the 5′ to 3′ sequences CCAGG and CCTGG.

Recognition sequences are indicated in **bold type**.