Supplemental material for

Structural insights into methylated DNA recognition by the C-terminal zinc fingers of the DNA reader protein ZBTB38

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Contains supplemental Tables S1-S2 and supplemental Figures S1-S4.

 Table S1. Oligonucleotide sequences utilized for NMR, X-ray crystallography and EMSA

NMR			
mCZ38BS_18mer_F	5'-1GCACTCATmCGGmCGCAGAC ¹⁸ -3'		
mCZ38BS_18mer_R	5'-19GTCTGmCGCmCGATGAGTGC ³⁶ -3'		
mCZ38BS_21mer_F	5'-1GCACTCATmCGGmCGCAGATCAG ²¹ -3'		
mCZ38BS_21mer_R	5'-22CTGATCTGmCGCmCGATGAGTGC ⁴² -3'		
X-ray Crystallography			
mCZ38BS_18mer_F	5'-1GCACTCATmCGGmCGCAGAC ¹⁸ -3'		
mCZ38BS_18mer_R	5'-19GTCTGmCGCmCGATGAGTGC ³⁶ -3'		
EMSA			
mCZ38BS_27mer_F (ATMGGMG)	5'-1GCACTCATmCGGmCGCAGATCAGCTAGCC ²⁷ -3'		
mCZ38BS_27mer_R	5'-28GGCTAGCTGATCTGmCGCmCGATGAGTGC ⁵⁴ -3'		
mCZ38BS_ACMG_F (ACMGGMG)	5'-GCACTCACmCGGmCGCAGATCAGCTAGCC-3'		
mCZ38BS_ACMG_R	5'-GGCTAGCTGATCTGmCGCmCGGTGAGTGC-3'		

Table S2. Summary of protein:DNA contacts between ZBTB38 ZF 6-9 and ZBTB38 ZF 6-9_K1055R with mCZ38BS

ZBTB38 ZF 6-9 (1006-1124)		mCZ38BS			
*Residue	Atom	Base	Atom	Distance (Å)	
Tyr-1010	Οη	C2	O1P	2.6/2.4	
Tyr-1010	Οη	C2	Р	3.7	
Tyr-1010	Cζ	C2	O1P	3.4	
Lys-1017	Nζ	T30	O1P	3.7/2.6	
Ser-1021	Сβ	A3	O2P	3.4/3.3	
Pro-1022	Сδ	A3	O2P	3.3	
Pro-1022	Сδ	C2	O1P	<mark>3.4/</mark> 3.5	
Ser-1023	N	A3	O2P	2.8	
Ser-1023	Ογ	A3	O2P	2.8	
Ser-1023	Сβ	A3	O2P	3.1	
Ser-1023	Сβ	A3	Р	3.6	
Ser-1023	N	A3	Р	3.7	
Ser-1023	Сβ	A3	C2'	4.2/4.1	
Met-1027	Сү	T30	C7	4.1	
Met-1027	Sδ	T30	C7	4.2	
His-1028	Νδ1	T30	O2P	2.8/2.7	
His-1028	Νδ1	T30	Р	3.5/3.6	
Cys-1031	Sγ	A29	O5'	3.4/3.3	
Cys-1031	Sγ	A29	C3'	3.8/3.6	
Cys-1031	Sγ	A29	Р	3.9/3.8	
Cys-1031	Sγ	A29	C5'	4.0/3.9	
Cys-1031	Sy	A29	C2'	4.2	
Arg-1045	Cζ	C27	O5'	3.3/3.2	
Arg-1045	Νη1	C27	05'	3.3	
Arg-1045	Νη2	C27	03	3.5	
Arg-1045	Νη1	C27	01P	3.7/3.4	
Arg-1045	Cζ	C27	C5'	3.9/4.0	
Arg-1045	Nŋ2	C27	05	3.4	
Arg-1045		G28	OIP	4.2	
Phe-1047	Co2	G28	OZP	3.3	
Phe-1047		027	C5	3.8/4.0	
Pne-1047	ING Chilo			4.2	
Val-1049	Cy2	130	C7	3.9/4.0	
Chy 1051	Cq2	A29 C6	C6	4.2	
Acp 1051	NZ2	A20	C3	4.2	
ASII-1052		A29	N6	2.9	
Asii-1052	Nδ2	C28		2.5/3.0	
Asii-1052		G20		4.2	
Asii-1052	UX NA2	620	NZ	4.2	
ASII-1052		G20	IN7	3.0 2.5	
W/103	021	C6	01P	2.5	
l vs-1055	N7	T8	04	2.6	
Lys-1055	NZ	T8	C7	3.8	
Lys-1055	NZ	W59	01	2.6	
Lys-1055	Cr	T8	C7	4.2	
W59		G28	C5	28	
Arg-1055	Nn2	G28	06	2.7	
Arg-1055	Nŋ1	T8	04	2.9	
	-				

A29N6 3.3 G28O6 3.4 G28C6 3.5 G28O6 3.3 C27C5 4.1 C27SmC 3.8 C27SmC 4.0 C27SmC 4.0 C27O2P $2.7/2.8$ C27P $3.8/3.6$ C26C2' 4.2 C26C5' 4.1 W982.9G25O1P2.6W1212.6G25O1P2.8G25O2P 3.5 C27SmC $3.7/3.8$ A7O1P 3.4 C27N42.8G25O2P 3.5 C27SmC $3.7/3.5$ T8C7 $3.6/3.7$ C9SmC $3.8/3.6$ C27C7 4.2 C9SmC $3.7/3.5$ T8C7 $3.8/3.6$ C27SmC $3.7/3.5$ T8C7 4.2 C9SmC $3.7/3.5$ T8C7 4.2 C9SmC $3.8/3.6$ C27C7 $4.2/4.1$ C9SmC $3.8/3.6$ C27C7 4.2 C9SmC $3.8/3.6$ C27C7 $4.2/4.1$ C9SmC $3.8/3.6$ C27C7 $4.2/4.1$ C9SmC $3.8/3.6$ C27C7 $4.2/4.1$ C9SmC $3.8/3.6$ C24C2' $4.1/4.0$ </th <th>$\begin{array}{cccccccccccccccccccccccccccccccccccc$</th> <th>3.2</th>	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3.2
G28O6 3.4 G28C6 3.5 G28O6 3.3 C27C5 4.1 C27SmC 3.8 C27SmC 4.0 C27SmC 4.0 C27O2P $2.7/2.8$ C27P $3.8/3.7$ C26C3' $3.8/3.6$ C26C2' 4.2 C26C5' 4.1 W982.9G25O1P2.5W572.8G25O1P2.6W1212.6G25O2P 3.5 C27SmC $3.7/3.8$ A7O1P3.4C27N42.8C9N42.9C9SmC $3.7/3.5$ T8C7 $4.0/3.9$ C27C7 4.2 C9SmC 3.8 C27SmC $3.7/3.5$ T8C7 4.1 T8C7 4.1 T8C7 4.1 T8C7 4.1 T8C7 4.1 C9SmC 3.8 C3C3' $4.1/4.0$ C4O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $2.7/2.6$ T22C3' 3.8 G23C2' $3.7/3.6$ T22C3' 3.8 G23C8 $3.9/4.1$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3.3
G28C63.5G28O63.3C27C54.1C27SmC3.8C27SmC4.0C27SmC4.0C27O2P2.7/2.8C27P3.8/3.7C26C3'3.8/3.6C26C2'4.2C26C5'4.1W982.9G25O1P2.5W572.8G25O1P2.6W1212.6G25O2P3.5C27SmC3.7/3.8A7O1P3.4C27N42.8C9N42.9C9SmC3.8/3.7C9SmC3.8/3.7C9SmC3.7/3.8R7O1P3.4C27N42.8C9N42.9C9SmC3.8/3.7C9SmC3.8T8C74.1T8C74.2C24C2'4.1T8O2P2.6/2.7C24C2'4.1T8O2P2.7/2.5C24P3.7/3.7G23C3'4.1/4.0C9O2P2.7/2.8C9P3.7G23O2P3.7/3.6T22C3'3.8G23C83.9/4.1	Arg-1055Nŋ2G28C6Arg-1055Nµ1G28O6Arg-1055CζC27C5Arg-1055NɛC27SmCArg-1055NɛC27SmCArg-1055Na1C27SmCArg-1055Na1C27SmCArg-1056Na1C27PHis-1056Na1C27PHis-1056Na1C27PHis-1056Na1C27PHis-1059Ca1C26C3'He-1059Ca1C26C3'Hie-1059Ca1C26C5'K1064NζW98W98G25O1PLys-1073NζW121W121G25O1PLys-1073NζW121W121G25O1PGlu-1079Ca2C27Asn-1078Na2A7O1PGlu-1079Ca2Glu-1079Ca2C27M4Glu-1079Ca2C27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27Glu-1079CaC27CaC24C24CyCyC24CyCyCaC31 </td <td>3.4</td>	3.4
G28O63.3C27C54.1C275mC3.8C275mC4.0C275mC4.0C27O2P2.7/2.8C27P3.8/3.7C26C3'3.8/3.6C26C2'4.2C26C5'4.1W982.9G25O1P2.5W572.8G25O1P2.6W1212.6G25O2P3.5C275mC3.7/3.8A7O1P3.4C27N42.8C9SmC3.7/3.5T8C73.6/3.7C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8C27C74.2C24C2'4.1T8C74.1T8C74.1C3O2P2.7/2.5C24P3.7/3.7G23C3'3.4C9O1P4.1/4.0C10O2P3.7/3.6C22C2'3.7G23C2'3.7G23C2'3.7G23C2'3.7G23C2'3.7<	Arg-1055Nn1G28O6Arg-1055CζC27C5Arg-1055CζC27SmCArg-1055NEC27SmCArg-1055NEC27SmCArg-1055CõC27SmCArg-1055CõC27SmCHis-1056Nõ1C27C2PHis-1056Nõ1C27C2PHis-1056Nõ1C27C2PHis-1059Cõ1C26C3'Ile-1059Cõ1C26C2'Ile-1059Cõ1C26C5'K1064NζW98W98G25O1PK1064NζW121W121G25O1PLys-1073NζW121W121G25O1PPhe-1075Cõ2C27Asn-1078Nõ2A7O1PGlu-1079O£2C9Glu-1079O£2C27Glu-1079O£2C27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27Glu-1079CõC27C27C24C2'Lys-1084Nõ1C24PHis-1084Nõ1C24PHis-1084Nõ1C24PHis-1084 <td>3.5</td>	3.5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1053CZCZCZArg-1055CZCZ7C5Arg-1055CZCZ7SmCArg-1055N1CZ7SmCArg-1055CSCZ7SmCArg-1055CSCZ7SmCArg-1055CSCZ7SmCArg-1056N81CZ7Q2PHis-1056N81CZ7PIle-1059CS1C26C2'Ile-1059CS1C26C2'Ile-1059CS1C26C5'K1064NZW57W57W57G25O1PLys-1073NZW121W121G25O1PPhe-1075CS2G25O2PLeu-1077CS1CZ7SmCAsn-1078N82A7O1PGlu-1079O62C27N4Glu-1079O62C27SmCGlu-1079C6C27C7Glu-1079C6C27C7Glu-1079C6C27C7Glu-1079C8C9SmCGlu-1079C8C9SmCGlu-1079C8C3C3'Glu-1079C8C23C3'Arg-1083Nn1C24PIle-1087C51G23C3'Arg-1093Nn1C9O2PArg-1093Nn1C9O2PArg-1093Nn1C9O2PArg-1093Nn1C9O2PArg	3.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1053CζC27SmCArg-1055NεC27SmCArg-1055NεC27SmCArg-1055Nh1C27SmCArg-1055Nδ1C27PHis-1056Nδ1C27PHis-1059Cδ1C26C2'His-1059Cδ1C26C2'K1064NζW98W98G25O1PK1064NζW57W57G25O1PLys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C27SmCAsn-1078Nδ2A7O1PGlu-1079Oε2C9SmCGlu-1079Oε2C9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC2C2Lys-1082NζT8C7Thr-1080Cγ2C24C2'Lys-1084Nδ1C24O2PHis-1084Nδ1C24PHe-1087Cδ1G23C3'Arg-1093Nn1C9O1PTyr-1105C6T22C2'Tyr-1105C61C23C3'Tyr-1105C61C24C2' <td>3.5</td>	3.5
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4.1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1055NεC27SmCArg-1055Nη1C27SmCArg-1055CδC27SmCHis-1056Nδ1C27PIle-1059Cδ1C26C3'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'K1064NζW98W98G25O1PKys-1073NζW121W121G25O1PLys-1073NζW121W121G25O1PLys-1079Cδ2C27SmCAsn-1078Nδ2ArO1PGlu-1079Oε2C9Glu-1079Oε2C9Glu-1079Oε2C9Glu-1079CδC27Glu-1079CδC9Glu-1079CδC9Glu-1079CδC9Glu-1079CδC9Glu-1079CδC3Glu-1079CβC9Glu-1079CβC2C24C2'Lys-1082NζT8C7Glu-1079Glu-1079CδC8C9Glu-1079CδC9SmCGlu-1079CδC9SmCGlu-1079CδC4C2Lys-1082 <td>3.8</td>	3.8
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1055Nη1C27SmCArg-1055CõC27SmCHis-1056Nõ1C27Q2PHis-1059Cõ1C26C3'Ile-1059Cõ1C26C2'Ile-1059Cõ1C26C5'K1064NζW98W98G25O1PK1064NζW57W57G25O1PLys-1073NζW121W121G25O1PPhe-1075Cõ2G25O2PLeu-1077Cõ1C27SmCAsn-1078Nõ2A7O1PGlu-1079Oc2C9SmCGlu-1079Oc2C9SmCGlu-1079CõC27C7Glu-1079CõC27SmCGlu-1079CõC27C7Glu-1079CõC27SmCGlu-1079CõC27SmCGlu-1079CõC27C7Glu-1079CõC27C7Glu-1079CõC27C7Glu-1079CõC27C7Glu-1079CõC27C7Glu-1079CõC24C2'Lys-1082NζT8C7His-1084Nõ1C24PIle-1083Cy2C24C3'Arg-1093Nŋ1C9Q2PArg-1093Nŋ1C9Q2PArg-1093Nŋ1C9Q2PArg-1093Nŋ1C9Q2P<	3.8
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1055CδC275mCHis-1056Nδ1C27Q2PHis-1056Nδ1C27PIle-1059Cδ1C26C3'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C2'K1064NζW98W98W98G25O1PK1064NζW121W121G25O1PLys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C275mCAsn-1078Nδ2A7O1PGlu-1079Oε2C9N4Glu-1079Oε2C27SmCGlu-1079Oε2C275mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβT8C7Glu-1079CβT8C7Fhr-1080Cγ2C24C2'Lys-1082NζT8O2PHis-1084Nδ1C24PHie-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1 <td< td=""><td>4.0</td></td<>	4.0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	His-1056Nδ1C27O2PHis-1056Nδ1C27PIle-1059Cδ1C26C3'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C5'K1064NζW98W98G25O1PK1064NζW57W57G25O1PLys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C275mCAsn-1078Nδ2A7O1PGlu-1079Oε2C9N4Glu-1079Oε2C9SmCGlu-1079Oε2C27SmCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2PHis-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PTyr-1105CζG23C3' <td>4.0</td>	4.0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	His-1056Nδ1C27PIle-1059Cδ1C26C3'Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C5'K1064NζW98W98G25O1PK1064NζW57W57G25O1PLys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C275mCAsn-1078Nδ2A7O1PGlu-1079Oε2C9N4Glu-1079Oε2C9SmCGlu-1079Oε2C9SmCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2PHis-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2P<	2.7/2.8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ile-1059C δ 1C26C3'Ile-1059C δ 1C26C2'Ile-1059C δ 1C26C5'K1064N ζ W98W98G25O1PK1064N ζ W57W57G25O1PLys-1073N ζ W121W121G25O1PPhe-1075C δ 2G25O2PLeu-1077C δ 1C27SmCAsn-1078N δ 2A7O1PGlu-1079Oc2C9N4Glu-1079Oc2C9SmCGlu-1079Oc2C9SmCGlu-1079C β C9SmCGlu-1079C β C9SmCGlu-1079C δ C27C7Glu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ T8C7Thr-1080C γ 2C24C2'Lys-1082N ζ T8O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O2P <t< td=""><td>3.8/3.7</td></t<>	3.8/3.7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Ile-1059Cδ1C26C2'Ile-1059Cδ1C26C5'K1064NζW98W98G25O1PK1064NζW57W57G25O1PLys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C275mCAsn-1078Nδ2A7O1PGlu-1079Oε2C27N4Glu-1079Oε2C9SmCGlu-1079Oε2C95mCGlu-1079Oε2C275mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβC95mCGlu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2PIle-1083Cγ2C24Sa'His-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PTyr-1105CT22C2'Tyr-1105CG23C8Tyr-1105CG23C8Tyr-1105CG23C8 <td>3.8/3.6</td>	3.8/3.6
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Ile-1059 C51 C26 C5' K1064 Nζ W98 G25 O1P K1064 Nζ W57 G25 O1P V57 G25 O1P Lys-1073 Nζ W121 W121 G25 O1P Smc G1 C27 SmC Glu-1079 O62 C27 SmC Glu-1079 G8 C9 SmC Glu-1079 Cβ C9 SmC Glu-1079 Cβ T8 C7 Glu-1079 Cβ T8 C7 Thr-1080 Cy2 C24 C2' Lys-1082 Nζ<	42
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Int 1000OC1OC20OC3K1064NζW98G25O1PK1064NζW57G25O1PLys-1073NζW121G25O1PLys-1073NζW121G25O1PPhe-1075C52G25O2PLeu-1077C51C27SmCGlu-1079O62C27N4Glu-1079O62C9SmCGlu-1079O62C9SmCGlu-1079O62C27SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβT8C7Thr-1080CY2C24C2'Lys-1082NζT8O2PHis-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9PArg-1093Nη1C9O2PArg-1093Nη1C9O2PTyr-1105C4C24SC2Tyr-1105C4C24SC2Tyr-1105C4C24SC2Tyr-1105C4C24SC2Tyr-1105C4C24SC2Tyr-1105C4C24	4 1
W302.9G25O1P2.5W572.8G25O1P2.6W1212.6G25O2P3.5C275mC3.7/3.8A7O1P3.4C27N42.8C9N42.9C95mC3.7/3.5T8C73.6/3.7C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8T8C74.1T8C74.1T8C74.1T8O2P2.6/2.7C24C2'4.1T8O2P2.7/2.5C24P3.7/3.7G23C3'4.1/4.0C9O2P2.7/2.8C9P3.7C9O2P3.9C9O1P4.1/4.0G10O2P3.7/3.6T22C3'3.8C245mC3.8C245mC3.8C245mC3.8C245mC3.8C245mC3.8C25C2'3.7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2.0
G23OTP2.3W572.8G25O1PQ26W1212.6G25O2PG25O2PSmC3.7/3.8A7O1PA4C27C9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC9SmCC174.2C9SmCC24C2'C24C2'C24C2'C24C2C24Q2PC25C24C24Q2PC25C24C24PC9O1PC9Q2PC9C1PC9Q2PC9C1PC9C1PC9C1PC9C1PC1/2.5C2'C23C2'C3C3'C4SmCC3C3'C4SmCC3C3'C4SmCC3C3'C4SmCC3C3'C3C3'C4SmCC3C3'C3C3'C4SmCC3C3'C4SmCC3C3'<	W90NZG25OTPK1064NZW57G25OTPLys-1073NZW121W121W121G25OTPPhe-1075C52G25O2PLeu-1077C51C27SmCAsn-1078N52A7OTPGlu-1079OE2C27N4Glu-1079OE2C9SmCGlu-1079OE2C9SmCGlu-1079OE2C9SmCGlu-1079OE2C27SmCGlu-1079OE2C27SmCGlu-1079C5C27C7Glu-1079C5C9SmCGlu-1079C5C9SmCGlu-1079C5T8C7Glu-1079C5T8C7Glu-1079C5T8C7Glu-1079C5T8C7Hr-1080CY2C24C2'Lys-1082NZT8O2PIle-1083CY2C24SmCHis-1084N51C24PIle-1087C51G23C3'Arg-1093N11C9O2PArg-1093N12C9O2PArg-1093N11C9O1PTyr-105C4C24SmCTyr-1105C5T22C2'Tyr-1105C4G23C3Thr-105C5C2C2Tyr-1105C4G23C3'Tyr-1105C4G23<	2.9
W572.8G25O1P2.6W1212.6G25O2P3.5C275mC3.7/3.8A7O1P3.4C27N42.8C9N42.9C95mC3.7/3.5T8C73.6/3.7C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8T8C74.1T8C74.1T8C74.1T8O2P2.6/2.7C24C2'4.1T8O2P2.7/2.5C24P3.7/3.7G23C3'4.1/4.0C9O2P2.7/2.8C9P3.7C9O2P3.9C9O1P4.1/4.0G10O2P3.7/3.6T22C3'3.8C23C83.9/4.1	K1064NgW57 $W57$ G25O1PLys-1073NZW121 $W121$ G25O1PPhe-1075C52G25O2PLeu-1077C51C27SmCAsn-1078N52A7O1PGlu-1079O62C27N4Glu-1079O62C9SmCGlu-1079O62C9SmCGlu-1079O62C27SmCGlu-1079C6C27C7Glu-1079C6C27C7Glu-1079C5C27C7Glu-1079C6C9SmCGlu-1079C6C9SmCGlu-1079C6T8C7Glu-1079C6T8C7Glu-1079C6T8C7Glu-1079C6T8C7Hrr-1080Cy2C24C2'Lys-1082NZT8O2PIle-1083Cy2C24SmCHis-1084N51C24PIle-1087C51G23C3'Arg-1093Nn1C9O2PArg-1093Nn1C9O2PArg-1093Nn1C9O2PTyr-1105C62T22C2'Tyr-1105C61C23C8Tyr-1105C61C24SmCTyr-1105C61G23C8Tyr-1105C61G23C8Tyr-1105C61C24C2'Tyr-1105<	2.3
G25O1P2.6W1212.6G25O1P2.8G25O2P3.5C275mC $3.7/3.8$ A7O1P3.4C27N42.8C9N42.9C95mC $3.7/3.5$ T8C73.6/3.7C95mC3.8C27C74.2C95mC3.8C27C74.2C95mC3.8T8C74.1T8C74.1T8C74.1T8C74.1T8O2P2.6/2.7C24C2'4.1C3C3'4.1/4.0C4O2P2.7/2.5C24P3.7/3.7G23C3'4.1/4.0C9O2P2.7/2.8C9P3.7C9O2P3.9C9O1P4.1/4.0G10O2P3.1/2.5G23O2P2.7/2.6T22C2'3.7G23P3.7/3.6T22C3'3.8C245mC3.8G23C83.9/4 1	W57G25O1PLys-1073NζW121W121G25O1PPhe-1075C δ 2G25O2PLeu-1077C δ 1C275mCAsn-1078N δ 2A7O1PGlu-1079O ϵ 2C27N4Glu-1079O ϵ 2C9N4Glu-1079O ϵ 2C95mCGlu-1079O ϵ 2C95mCGlu-1079O ϵ 2C275mCGlu-1079O ϵ 2C275mCGlu-1079C δ C27C7Glu-1079C δ C95mCGlu-1079C δ C95mCGlu-1079C δ C95mCGlu-1079C δ C95mCGlu-1079C δ C95mCGlu-1079C δ C95mCGlu-1079C δ T8C7Thr-1080C γ 2C24C2'Lys-1082N ζ T8O2PIle-1083C γ 2C24SmCHis-1084N δ 1C24O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C24SmCTyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8	2.8
W1212.6G25O1P2.8G25O2P3.5C275mC $3.7/3.8$ A7O1P 3.4 C27N42.8C9N42.9C95mC $3.7/3.5$ T8C7 $3.6/3.7$ C95mC 3.8 C275mC $4.0/3.9$ C27C7 4.2 C95mC 3.8 C275mC $4.0/3.9$ C27C7 4.2 C95mC 3.8 T8C7 4.1 T8C7 4.1 T8C7 4.2 C24C2' 4.1 T8O2P $2.6/2.7$ C245mC $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 C9O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.7/3.6$ T22C2' 3.7 G23P $3.7/3.6$ T22C3' 3.8 C245mC 3.8 G23C8 $3.9/4$	Lys-1073NζW121W121G25O1PPhe-1075Cδ2G25O2PLeu-1077Cδ1C27SmCAsn-1078Nδ2A7O1PGlu-1079Oε2C27N4Glu-1079Oε2C9N4Glu-1079Oε2C9SmCGlu-1079Oε1T8C7Glu-1079CβC9SmCGlu-1079CδC27C7Glu-1079CδC27C7Glu-1079CδC9SmCGlu-1079CδC9SmCGlu-1079CβC9SmCGlu-1079CβC9SmCGlu-1079CβT8C7Glu-1079CβT8C7Glu-1079CβT8C7Hr-1080Cγ2C24C2'Lys-1082NζT8O2PIle-1083Cγ2C24SmCHis-1084Nδ1C24O2PHis-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PTyr-1105Cε2T22C2'Tyr-1105Cε1C24SmCTyr-1105Cε1C24C2'Tyr-1105Cε1G23C8Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'	2.6
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	W121G25O1PPhe-1075C δ 2G25O2PLeu-1077C δ 1C27SmCAsn-1078N δ 2A7O1PGlu-1079O ϵ 2C27N4Glu-1079O ϵ 2C9SmCGlu-1079O ϵ 2C9SmCGlu-1079O ϵ 2C9SmCGlu-1079O ϵ 2C27SmCGlu-1079O ϵ 2C27SmCGlu-1079C δ C27C7Glu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ T8C7Glu-1079C δ T8C7Glu-1079C δ T8C7Hir-1080C γ 2C24C2'Lys-1082N ζ T8O2PIle-1083C γ 2C24SmCHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 1C24SmCTyr-1105C ϵ 1C24SmCTyr-1105C ϵ 1C24SmCTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 1C24SmCTyr-1105C ϵ 1 <td< td=""><td>2.6</td></td<>	2.6
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Phe-1075Cδ2G25O2PLeu-1077Cδ1C275mCAsn-1078Nδ2A7O1PGlu-1079Oε2C27N4Glu-1079Oε2C9SmCGlu-1079Oε1T8C7Glu-1079Oε2C275mCGlu-1079Oε2C275mCGlu-1079Oε2C275mCGlu-1079CδC27C7Glu-1079CδC95mCGlu-1079CδC95mCGlu-1079CδC95mCGlu-1079CβT8C7Glu-1079CβT8C7Glu-1079CβT8C7Hrr-1080Cγ2C24C2'Lys-1082NζT8O2PIle-1083Cγ2C24SmCHis-1084Nδ1C24PIle-1087C51G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O2PTyr-1105Cε2T22C2'Tyr-1105Cε1C24SmCTyr-1105Cε1C24C2'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105 <td>2.8</td>	2.8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Leu-1077Cδ1C27SmCAsn-1078Nδ2A7O1PGlu-1079Oε2C27N4Glu-1079Oε2C9N4Glu-1079Oε1T8C7Glu-1079Oε1T8C7Glu-1079Oε2C27SmCGlu-1079Oε2C27SmCGlu-1079Oε2C27SmCGlu-1079CδC27C7Glu-1079CδC9SmCGlu-1079CδC9SmCGlu-1079CβT8C7Glu-1079CβT8C7Glu-1079CβT8C7Hr-1080Cγ2C24C2'Lys-1082NζT8O2PIle-1083Cγ2C24SmCHis-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O1PTyr-105Cε2T22C2'Tyr-1105Cε1C24SmCTyr-1105Cε1C24SmCTyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105Cε1G23C3'Tyr-1105<	3.5
A7O1P 3.4 C27N4 2.8 C9N4 2.9 C95mC $3.7/3.5$ T8C7 $3.6/3.7$ C95mC 3.8 C275mC $4.0/3.9$ C27C7 4.2 C95mC 3.8 C27C7 4.2 C95mC 3.8 T8C7 4.1 T8C7 4.2 C24C2' 4.1 T8O2P $2.6/2.7$ C245mC $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 C9O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.7/3.6$ T22C3' 3.8 C23C3' 3.8 C245mC 3.8 G23C8 $3.9/4$	Asn-1078N $\delta 2$ A7O1PGlu-1079O $\epsilon 2$ C27N4Glu-1079O $\epsilon 2$ C9SmCGlu-1079O $\epsilon 1$ T8C7Glu-1079O $\epsilon 1$ T8C7Glu-1079O $\epsilon 2$ C27SmCGlu-1079O $\epsilon 2$ C27SmCGlu-1079O $\epsilon 2$ C27SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ C9SmCGlu-1079C δ T8C7Glu-1079C β T8C7Glu-1079C β T8O2PIle-1083C $\gamma 2$ C24C2'Lys-1082N ζ T8O2PHis-1084N $\delta 1$ C24PIle-1087C $\delta 1$ G23C3'Arg-1093N $\eta 1$ C9O2PArg-1093N $\eta 1$ C9O1PTyr-1094O η G10O2PTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C22C2'Tyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C22C2'Tyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24SmCTyr-1105C $\epsilon 1$ C24C2' <td>3.7/3.8</td>	3.7/3.8
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Glu-1079 $O\epsilon 2$ $C27$ N4Glu-1079 $O\epsilon 2$ $C9$ $N4$ Glu-1079 $O\epsilon 2$ $C9$ $5mC$ Glu-1079 $O\epsilon 1$ $T8$ $C7$ Glu-1079 $O\epsilon 2$ $C27$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C27$ $C7$ Glu-1079 $C\delta$ $C27$ $C7$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Thr-1080 $C\gamma 2$ $C24$ $C2'$ Lys-1082 $N\zeta$ $T8$ $O2P$ His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ P Ile-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $T22$ $C3'$ Tyr-1105 $C\zeta$ $C23$ $C8$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $C22$ $C2'$ Tyr-1105 $C\zeta$ <td>3.4</td>	3.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Glu-1079 $O\epsilon_2$ $C9$ $N4$ Glu-1079 $O\epsilon_2$ $C9$ $5mC$ Glu-1079 $O\epsilon_1$ $T8$ $C7$ Glu-1079 $O\epsilon_2$ $C27$ $5mC$ Glu-1079 $O\epsilon_2$ $C27$ $5mC$ Glu-1079 $C\delta$ $C27$ $C7$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Thr-1080 $C\gamma_2$ $C24$ $C2'$ Lys-1082 $N\zeta$ $T8$ $O2P$ His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ $O2P$ His-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $C23$ $C8$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105	2.8
C95mC $3.7/3.5$ T8C7 $3.6/3.7$ C95mC 3.8 C275mC $4.0/3.9$ C27C7 4.2 C95mC 3.8 T8C7 4.1 C95mC 3.8 T8C7 4.1 T8C7 4.2 C24C2' 4.1 T8O2P $2.6/2.7$ C245mC $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 C9O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.1/2.5$ G23C2' 3.7 G23C2' 3.7 G23P $3.7/3.6$ T22C2' 3.8 C245mC 3.8 G23C8 $3.9/4$	Glu-1079 $O\epsilon_2$ $C9$ $5mC$ Glu-1079 $O\epsilon_1$ $T8$ $C7$ Glu-1079 $O\epsilon_2$ $C27$ $5mC$ Glu-1079 $O\epsilon_2$ $C27$ $5mC$ Glu-1079 $O\epsilon_2$ $C27$ $C7$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Thr-1080 $C\gamma^2$ $C24$ $C2'$ Lys-1082 $N\zeta$ $T8$ $O2P$ Ile-1083 $C\gamma^2$ $C24$ SmC His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ P Ile-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-1105 $C\epsilon^2$ $T22$ $C2'$ Tyr-1105 $C\epsilon^2$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105 <td>29</td>	29
78 $C7$ $3.6/3.7$ $C9$ $5mC$ 3.8 $C27$ $5mC$ $4.0/3.9$ $C27$ $C7$ 4.2 $C9$ $5mC$ $4.2/4.1$ $C9$ $5mC$ 3.8 78 $C7$ 4.1 $T8$ $C7$ 4.1 $T8$ $C7$ 4.2 $C24$ $C2'$ 4.1 $T8$ $O2P$ $2.6/2.7$ $C24$ SmC $4.1/4.0$ $C24$ $O2P$ $2.7/2.5$ $C24$ P $3.7/3.7$ $G23$ $C3'$ $4.1/4.0$ $C9$ $O2P$ $2.7/2.8$ $C9$ $O1P$ $4.1/4.0$ $G10$ $O2P$ 3.7 $G23$ $O2P$ 3.7 $G23$ $O2P$ $3.7/3.6$ $T22$ $C2'$ 3.7 $G23$ P $3.7/3.6$ $T22$ $C3'$ 3.8 $C24$ $5mC$ 3.8 $G23$ $C8$ $3.9/4$	Glu-1079 $O\epsilon1$ T8 $C7$ Glu-1079 $O\epsilon2$ $C9$ $5mC$ Glu-1079 $O\epsilon2$ $C27$ $5mC$ Glu-1079 $C\delta$ $C27$ $C7$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $O2P$ Ile-1080 $C\gamma2$ $C24$ $D2P$ Lys-1082 $N\zeta$ $T8$ $O2P$ His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ P Ile-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-1105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\epsilon1$ $C24$ $5mC$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105 $C\zeta$	37/35
C9 $5mC$ 3.8 $C27$ $5mC$ $4.0/3.9$ $C27$ $C7$ 4.2 $C9$ $5mC$ $4.2/4.1$ $C9$ $5mC$ 3.8 $T8$ $C7$ 4.1 $T8$ $C7$ 4.2 $C24$ $C2'$ 4.1 $T8$ $C7$ 4.2 $C24$ $C2'$ 4.1 $T8$ $O2P$ $2.6/2.7$ $C24$ $5mC$ $4.1/4.0$ $C24$ $O2P$ $2.7/2.5$ $C24$ P $3.7/3.7$ $G23$ $C3'$ $4.1/4.0$ $C9$ $O2P$ $2.7/2.8$ $C9$ P 3.7 $C9$ $O2P$ 3.9 $C9$ $O1P$ $4.1/4.0$ $G10$ $O2P$ 3.7 $G23$ P $3.7/3.6$ $T22$ $C2'$ 3.7 $G23$ P $3.7/3.6$ $T22$ $C3'$ 3.8 $C24$ $5mC$ 3.8 $G23$ $C8$ $3.9/4.1$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3 6/3 7
C9SINC 3.8 C27 $5mC$ $4.0/3.9$ C27C7 4.2 C9 $5mC$ 3.8 T8C7 4.1 C9 $5mC$ 3.8 T8C7 4.1 T8C7 4.1 T8C7 4.2 C24C2' 4.1 T8O2P $2.6/2.7$ C24 $5mC$ $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 C9O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.1/2.5$ G23O2P $2.7/2.6$ T22C2' 3.7 G23P $3.7/3.6$ T22C3' 3.8 C24 $5mC$ 3.8 G23C8 $3.9/4$	Glu-1079 Op $C9$ $C9$ $Sinc$ Glu-1079 $O\epsilon 2$ $C27$ $5mC$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Thr-1080 $C\gamma 2$ $C24$ $C2'$ Lys-1082 $N\zeta$ $T8$ $O2P$ Ile-1083 $C\gamma 2$ $C24$ SmC His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ P Ile-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\epsilon1$ $C24$ $5mC$ Tyr-1105 $C\zeta$ $T22$ $C2'$ Tyr-1105 $C\zeta$ $C23$ $C8$ Tyr-1105 $C\zeta$ $C23$ $C2P$	2.0/3.7
C27 $C7$ $4.0/3.9$ $C27$ $C7$ 4.2 $C9$ $5mC$ 3.8 $T8$ $C7$ 4.1 $T8$ $C7$ 4.1 $T8$ $C7$ 4.1 $T8$ $C7$ 4.2 $C24$ $C2'$ 4.1 $T8$ $O2P$ $2.6/2.7$ $C24$ $5mC$ $4.1/4.0$ $C24$ $O2P$ $2.7/2.5$ $C24$ P $3.7/3.7$ $G23$ $C3'$ $4.1/4.0$ $C9$ $O2P$ $2.7/2.8$ $C9$ P 3.7 $C9$ $O2P$ 3.9 $C9$ $O1P$ $4.1/4.0$ $G10$ $O2P$ $3.1/2.5$ $G23$ $O2P$ $2.7/2.6$ $T22$ $C2'$ 3.7 $G23$ P $3.7/3.6$ $T22$ $C3'$ 3.8 $C24$ $5mC$ 3.8 $G23$ $C8$ $3.9/4$	Glu-1079 $OE2$ $C27$ ShiteGlu-1079 $C\delta$ $C27$ $C7$ Glu-1079 $C\delta$ $C9$ $5mC$ Glu-1079 $C\beta$ $C9$ $5mC$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Glu-1079 $C\beta$ $T8$ $C7$ Hir-1080 $C\gamma2$ $C24$ $C2'$ Lys-1082 $N\zeta$ $T8$ $O2P$ Ile-1083 $C\gamma2$ $C24$ $5mC$ His-1084 $N\delta1$ $C24$ $O2P$ His-1084 $N\delta1$ $C24$ P Ile-1087 $C\delta1$ $G23$ $C3'$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Arg-1093 $N\eta1$ $C9$ $O2P$ Tyr-105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\epsilon2$ $T22$ $C2'$ Tyr-1105 $C\zeta$	3.0 4.0/2.0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Glu-10/9CoC27C7Glu-1079C δ C95mCGlu-1079C β C95mCGlu-1079C δ T8C7Glu-1079C β T8C7Thr-1080C γ 2C24C2'Lys-1082N ζ T8O2PIle-1083C γ 2C245mCHis-1084N δ 1C24O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-1094O η G10O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 1C245mCTyr-1105C ζ T22C2'Tyr-1105C ζ G23C8Tyr-1105C ζ G23C8Tyr-1105C ϵ 1G23C3'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C3'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C3Tyr-1105C ϵ 1G23C3Tyr-1105C ϵ 1G23C3Tyr-1105C ϵ 1G23C3Tyr-1105C ϵ 1G23C3Tyr-1105C	4.0/3.9
C9SmC $4.2/4.1$ C95mC 3.8 T8C7 4.1 T8C7 4.1 T8C7 4.2 C24C2' 4.1 T8O2P $2.6/2.7$ C245mC $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 C9O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.1/2.5$ G23O2P $2.7/2.6$ T22C2' 3.7 G23P $3.7/3.6$ T22C3' 3.8 C245mC 3.8 G23C8 $3.9/4$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4.2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Glu-1079CβC95mCGlu-1079CδT8C7Glu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2Plle-1083Cγ2C245mCHis-1084Nδ1C24O2PHis-1084Nδ1C24Plle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O1PTyr-1094OηG10O2PTyr-1105Cε2T22C2'Tyr-1105Cε1C245mCTyr-1105CξG23C8Tyr-1105CξT22C2'Tyr-1105CξG23C8Tyr-1105CζG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C3	4.2/4.1
T8C74.1T8C74.2C24C2'4.1T8O2P $2.6/2.7$ C245mC $4.1/4.0$ C24O2P $2.7/2.5$ C24P $3.7/3.7$ G23C3' $4.1/4.0$ C9O2P $2.7/2.8$ C9P 3.7 G23O2P 3.9 C9O1P $4.1/4.0$ G10O2P $3.1/2.5$ G23O2P $2.7/2.6$ T22C2' 3.7 G23P $3.7/3.6$ T22C3' 3.8 C245mC 3.8 G23C8 $3.9/4$	Glu-1079CδT8C7Glu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2Plle-1083Cγ2C245mCHis-1084Nδ1C24O2PHis-1084Nδ1C24Plle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O1PTyr-1094OηG10O2PTyr-1105Cε2T22C2'Tyr-1105Cε1C245mCTyr-1105CξG23C8Tyr-1105CζG23C8Tyr-1105CξT22C2'Tyr-1105CζG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C2	3.8
T8 $C7$ 4.2 $C24$ $C2'$ 4.1 $T8$ $O2P$ $2.6/2.7$ $C24$ $5mC$ $4.1/4.0$ $C24$ $O2P$ $2.7/2.5$ $C24$ P $3.7/3.7$ $G23$ $C3'$ $4.1/4.0$ $C9$ $O2P$ $2.7/2.8$ $C9$ P 3.7 $C9$ $O2P$ 3.9 $C9$ $O1P$ $4.1/4.0$ $G10$ $O2P$ $3.1/2.5$ $G23$ $O2P$ $2.7/2.6$ $T22$ $C2'$ 3.7 $G23$ P $3.7/3.6$ $T22$ $C3'$ 3.8 $C24$ $5mC$ 3.8 $G23$ $C8$ $3.9/4$	Glu-1079CβT8C7Thr-1080Cγ2C24C2'Lys-1082NζT8O2Plle-1083Cγ2C245mCHis-1084Nδ1C24O2PHis-1084Nδ1C24Plle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9O2PArg-1093Nη1C9O1PTyr-1094OηG10O2PTyr-1105Cε2T22C2'Tyr-1105Cε1C245mCTyr-1105CξT22C3'Tyr-1105CξT22C2'Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105CξG23C8	4.1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Thr-1080 $C\gamma^2$ $C24$ $C2'$ Lys-1082N ζ T8O2PIle-1083 $C\gamma^2$ C245mCHis-1084N δ 1C24O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-1094O η G10O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 1C245mCTyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2	4.2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Lys-1082N ζ T8O2PIle-1083C γ 2C245mCHis-1084N δ 1C24O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-1094O η G10O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2	4.1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ile-1083 $C\gamma^2$ $C24$ $5mC$ His-1084N δ 1C24O2PHis-1084N δ 1C24PIle-1087C δ 1G23C3'Arg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O2PArg-1093N η 1C9O1PTyr-1094O η G10O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 1C245mCTyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2Tyr-1105C ϵ 1G23C2 <t< td=""><td>2.6/2.7</td></t<>	2.6/2.7
C24 O2P 2.7/2.5 C24 P 3.7/3.7 G23 C3' 4.1/4.0 C9 O2P 2.7/2.8 C9 P 3.7 C9 O2P 3.9 C9 O1P 4.1/4.0 G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	His-1084No1C24O2PHis-1084No1C24PIle-1087Co1G23C3'Arg-1093Nn1C9O2PArg-1093Nn1C9O2PArg-1093Nn2C9O2PArg-1093Nn1C9O1PTyr-1094OnG10O2PTyr-1105Ce2T22C2'Tyr-1105Ce1C245mCTyr-1105Cc4G23C8Tyr-1105Cc5T22C2'Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C8Tyr-1105Cc6G23C2	4.1/4.0
C24 P 3.7/3.7 G23 C3' 4.1/4.0 C9 O2P 2.7/2.8 C9 P 3.7 C9 O2P 3.9 C9 O1P 4.1/4.0 G10 O2P 3.9 G23 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	His-1084Nδ1C24PIle-1087Cδ1G23C3'Arg-1093Nη1C9O2PArg-1093Nη1C9PArg-1093Nη2C9O2PArg-1093Nη1C9O1PTyr-1094OηG10O2PTyr-1105Cε2T22C2'Tyr-1105Cφ1G23PTyr-1105Cε1C245mCTyr-1105CξT22C2'Tyr-1105CξG23C8Tyr-1105CξG23C8Tyr-1105Cξ1G23C8Tyr-1105Cξ1G23C8Tyr-1105Cξ1G23C8Tyr-1105Cξ1G23C8Tyr-1105Cξ1G23C8Tyr-1105Cξ1G23C8	2.7/2.5
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ille-1087ColiColiColiColiIlle-1087ColiG23C3'Arg-1093Nn1C9O2PArg-1093Nn1C9PArg-1093Nn2C9O2PArg-1093Nn1C9O1PTyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105Cc2T22C2'Tyr-1105Cc1C245mCTyr-1105Cc3C8Tyr-1105Tyr-1105Cc4G23C8Tyr-1105Cc5G23C8Tyr-1105Cc61G23C8Tyr-1105Cc61G23C8Tyr-1105Cc7G23C8	37/37
C9 O2P 2.7/2.8 C9 P 3.7 C9 O2P 3.9 C9 O1P 4.1/4.0 G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4	Arg-1093Nn1C9O2PArg-1093Nn1C9PArg-1093Nn2C9O2PArg-1093Nn2C9O2PArg-1093Nn1C9O1PTyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ϵ 1G23C2	4 1/4 0
C9 P 3.7 C9 O2P 3.9 C9 O1P 4.1/4.0 G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4	Arg 1000Nn1C9PArg-1093Nn2C9O2PArg-1093Nn2C9O2PArg-1093Nn1C9O1PTyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2	2 7/2 8
C9 O2P 3.9 C9 O1P 4.1/4.0 G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	Arg-1093Nn2C9O2PArg-1093Nn1C9O1PTyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105C ϵ 2T22C2'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C8Tyr-1105C ζ 1G23C2	3.7
C9 O1P 4.1/4.0 G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4	Arg-1093Nrl2C9O2PArg-1093Nrl1C9O1PTyr-1094OrG10O2PTyr-1105OrG23O2PTyr-1105Cc2T22C2'Tyr-1105Cc2T22C3'Tyr-1105Cc1C245mCTyr-1105CζG23C8Tyr-1105CζT22C2'Tyr-1105CζG23C8Tyr-1105CζG23C8Tyr-1105CζG23C8Tyr-1105CζG23C8Tyr-1105CζG23C8Tyr-1105CζG23C8Tyr-1105CζG23C8	3.7
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Arg-1093Nr11C9O1PTyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105C ϵ^2 T22C2'Tyr-1105OnG23PTyr-1105C ϵ^2 T22C3'Tyr-1105C ϵ^2 T22C3'Tyr-1105C ϵ^2 G23C8Tyr-1105C ζ T22C2'Tyr-1105C ξ^2 T22C2'Tyr-1105C ζ G23C8Tyr-1105C ϵ^2 G23C8Tyr-1105C ϵ^2 G23C8Tyr-1105C ϵ^2 G23C8Tyr-1105C ϵ^2 G23C2	3.9
G10 O2P 3.1/2.5 G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	Tyr-1094OnG10O2PTyr-1105OnG23O2PTyr-1105C ϵ 2T22C2'Tyr-1105OnG23PTyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ T22C2'Tyr-1105C ζ T22C2'Tyr-1105C ζ T22C2'Tyr-1105C ζ G23C8Tyr-1105C ζ G23C8Tyr-1105C ζ G23C2	4.1/4.0
G23 O2P 2.7/2.6 T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	Tyr-1105OnG23O2PTyr-1105C ϵ 2T22C2'Tyr-1105OnG23PTyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ T22C2'Tyr-1105C ζ T22C2'Tyr-1105C ζ T22C2'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2	3.1/2.5
T22 C2' 3.7 G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4	Tyr-1105C ϵ 2T22C2'Tyr-1105OqG23PTyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ T22C2'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8	2.7/2.6
G23 P 3.7/3.6 T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4 1	Tyr-1105OnG23PTyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ T22C2'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C2	3.7
T22 C3' 3.8 C24 5mC 3.8 G23 C8 3.9/4	Tyr-1105C ϵ 2T22C3'Tyr-1105C ϵ 1C245mCTyr-1105C ζ G23C8Tyr-1105C ζ T22C2'Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8Tyr-1105C ϵ 1G23C8	3.7/3.6
C24 5mC 3.8 G23 C8 3.9/4 1	Tyr-1105 Cε1 C24 5mC Tyr-1105 Cζ G23 C8 Tyr-1105 Cζ T22 C2' Tyr-1105 Cε1 G23 C8 Tyr-1105 Cζ T22 C2' Tyr-1105 Cε1 G23 C8 Tyr-1105 Cε1 G23 C8	3.8
G23 C8 3.9/4 1	Tyr-1105 Cζ G23 C8 Tyr-1105 Cζ T22 C2' Tyr-1105 Cε1 G23 C8 Tyr-1105 Cε1 G23 C8	3.8
	Tyr-1105 Cζ T22 C2' Tyr-1105 Cε1 G23 C8 Tyr-1105 Cζ G23 O2P	3.9/4.1
T22 C2' 4.0/4.1	Tyr-1105 Cε1 G23 C8 Tyr-1105 C7 G23 O2P	4.0/4.1
G23 C8 4.1	Tvr-1105 C7 G23 O2P	4.1
G23 O2P 3.4		3.4
	Tyr-1105 Cε2 G23 O2P	3.4
T22 C2' 4.0 G23 C8 4.1 G23 C8 3.1	The second	4.(4. ⁻ 3.

Leu-1106	Cδ2	G10	C3'	4.1
Leu-1106	C δ2	G10	C2'	4.2
Ser-1107	Ογ	T22	C7	3.7
Thr-1108	Oy1	T22	O2P	2.7/2.6
Thr-1108	Cβ	T22	O2P	3.4
Thr-1108	Cy2	C21	C3'	4.1/4.0
Arg-1110	Nŋ1	G11	O2P	3.5
Asn-1111	Νδ2	C21	O2P	2.7
Asn-1111	Сβ	C21	O2P	3.4
Arg-1115	Nŋ2	C21	O1P	3.0
Arg-1115	Nŋ2	C21	O2P	4.2
Arg-1115	Nŋ1	C21	O1P	3.1/3.2
Arg-1115	Nŋ2	T20	O3'	3.1
Arg-1115	Nŋ2	C21	Р	3.6

*Contacts shared between the two structures are shown in black, while contacts and distances unique to the WT structure or the K1055R variant are shown in red and blue, respectively.



Figure S1. Representative EMSA gels for the binding isotherms depicted in Figures 1D (*A*), 3B (*B*), and 3D/4B (*C*). The wild-type (WT) ZF6-9 in complex with the mCZ38BS_27mer from (*A*) is reproduced in (*B*) and (*C*) for comparative purposes. M denotes a methylated cytosine.



Figure S2. *A*, Summary of interactions for ZF6 with the mCZ38BS. *B*, Image depicting the solvation layer surrounding the 3'-mCpG site (red spheres). *C*, Summary of interactions for ZF9 with the mCZ38BS. A side chain interaction between I1083 in ZF8 and mC24 is also depicted. *D*, Interactions between Asn-1052, Arg-1055 and Glu-1079 with the core T8:A29, mC9:G28 and G10:mC27 base pairs. Electron densities (2Fo-Fc) contoured at 1_{σ} are shown. For all panels, black dotted lines depict classical H-bond interactions, while red dotted lines represent van der Waals interactions.



Figure S3. ¹H/¹⁵N HSQC spectral overlay of WT ZBTB38 ZFs 6-9 (black), the K1055R (red) and L1077A (green) variants, indicating that the respective point mutations do not disrupt protein structural integrity.



Figure S4. Comparison of the core mCpG recognition between the ZBTB33:MeECad complex (*A*, PDB ID: 4F6N) and the ZBTB38 ZF 6-9:mCZ38BS complex (*B*). Black dotted lines represent classical hydrogen bond interactions, blue dotted lines represent water mediated hydrogen bonds and red dotted lines represent van der Waals interactions.