

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence													
polyHis CTRL		A1	HHHHHHHH														
		A2	HHHHHHHH														
		A3	Blank														
H2A (Q6Fl13)	1-20	A4	CONTROL	S	G	R	G	K	Q	G	G	K	A	R	A	K	K S R S S R
		A5	pS1	pS	G	R	G	K	Q	G	G	K	A	R	A	K	A K S R S S R
		A6	K5me	S	G	R	G	Kme	Q	G	G	K	A	R	A	K	A K S R S S R
		A7	K5me2	S	G	R	G	Kme2	Q	G	G	K	A	R	A	K	A K S R S S R
		A8	K5me3	S	G	R	G	Kme3	Q	G	G	K	A	R	A	K	A K S R S S R
		A9	K5ac	S	G	R	G	Kac	Q	G	G	K	A	R	A	K	A K S R S S R
		A10	K9me	S	G	R	G	K	Q	G	G	Kme	A	R	A	K	A K S R S S R
		A11	K9me2	S	G	R	G	K	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		A12	K9me3	S	G	R	G	K	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		A13	K9ac	S	G	R	G	K	Q	G	G	Kac	A	R	A	K	A K S R S S R
		A14	K13me	S	G	R	G	K	Q	G	G	K	A	R	A	K	A K S R S S R
		A15	K13me2	S	G	R	G	K	Q	G	G	K	A	R	A	K	A K S R S S R
		A16	K13me3	S	G	R	G	K	Q	G	G	K	A	R	A	K	A K S R S S R
		A17	K13ac	S	G	R	G	K	Q	G	G	K	A	R	A	K	A K S R S S R
		A18	pS1/K5me	pS	G	R	G	Kme	Q	G	G	K	A	R	A	K	A K S R S S R
		A19	pS1/K5me2	pS	G	R	G	Kme2	Q	G	G	K	A	R	A	K	A K S R S S R
		A20	pS1/K5me3	pS	G	R	G	Kme3	Q	G	G	K	A	R	A	K	A K S R S S R
		A21	pS1/K5ac	pS	G	R	G	Kac	Q	G	G	K	A	R	A	K	A K S R S S R
		A22	K5me/K9me	S	G	R	G	Kme	Q	G	G	Kme	A	R	A	K	A K S R S S R
		A23	K5me/K9me2	S	G	R	G	Kme	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		A24	K5me/K9me3	S	G	R	G	Kme	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		A25	K5me/K9ac	S	G	R	G	Kme	Q	G	G	Kac	A	R	A	K	A K S R S S R
		A26	K5me2/K9me	S	G	R	G	Kme2	Q	G	G	Kme	A	R	A	K	A K S R S S R
		A27	K5me2/K9me2	S	G	R	G	Kme2	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		A28	K5me2/K9me3	S	G	R	G	Kme2	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		A29	K5me2/K9ac	S	G	R	G	Kme2	Q	G	G	Kac	A	R	A	K	A K S R S S R
		A30	K5me3/K9me	S	G	R	G	Kme3	Q	G	G	Kme	A	R	A	K	A K S R S S R
		A31	K5me3/K9me2	S	G	R	G	Kme3	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		A32	K5me3/K9me3	S	G	R	G	Kme3	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		A33	K5me3/K9ac	S	G	R	G	Kme3	Q	G	G	Kac	A	R	A	K	A K S R S S R
		A34	K5ac/K9me	S	G	R	G	Kac	Q	G	G	Kme	A	R	A	K	A K S R S S R
		A35	K5ac/K9me2	S	G	R	G	Kac	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		A36	K5ac/K9me3	S	G	R	G	Kac	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		A37	K5ac/K9ac	S	G	R	G	Kac	Q	G	G	Kac	A	R	A	K	A K S R S S R
		B1	K9me/K13me	S	G	R	G	K	Q	G	G	Kme	A	R	A	K	A K S R S S R
		B2	K9me/K13me2	S	G	R	G	K	Q	G	G	Kme	A	R	A	K	A K S R S S R
		B3	K9me/K13me3	S	G	R	G	K	Q	G	G	Kme	A	R	A	K	A K S R S S R
		B4	K9me/K13ac	S	G	R	G	K	Q	G	G	Kme	A	R	A	K	A K S R S S R
		B5	K9me2/K13me	S	G	R	G	K	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		B6	K9me2/K13me2	S	G	R	G	K	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		B7	K9me2/K13me3	S	G	R	G	K	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		B8	K9me2/K13ac	S	G	R	G	K	Q	G	G	Kme2	A	R	A	K	A K S R S S R
		B9	K9me3/K13me	S	G	R	G	K	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		B10	K9me3/K13me2	S	G	R	G	K	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		B11	K9me3/K13me3	S	G	R	G	K	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		B12	K9me3/K13ac	S	G	R	G	K	Q	G	G	Kme3	A	R	A	K	A K S R S S R
		B13	K9ac/K13me	S	G	R	G	K	Q	G	G	Kac	A	R	A	K	A K S R S S R
		B14	K9ac/K13me2	S	G	R	G	K	Q	G	G	Kac	A	R	A	K	A K S R S S R
		B15	K9ac/K13me3	S	G	R	G	K	Q	G	G	Kac	A	R	A	K	A K S R S S R
		B16	K9ac/K13ac	S	G	R	G	K	Q	G	G	Kac	A	R	A	K	A K S R S S R
		B17	Blank														
6-25	B18	B18	CONTROL	Q	G	G	K	A	R	A	K	A	K	S	R	S	R A G L Q F
		B19	K13me	Q	G	G	K	A	R	A	Kme	A	K	S	R	S	S R A G L Q F
		B20	K13me2	Q	G	G	K	A	R	A	Kme2	A	K	S	R	S	S R A G L Q F
		B21	K13me3	Q	G	G	K	A	R	A	Kme3	A	K	S	R	S	S R A G L Q F
		B22	K13ac	Q	G	G	K	A	R	A	Kac	A	K	S	R	S	S R A G L Q F
		B23	K15me	Q	G	G	K	A	R	A	K	A	Kme	S	R	S	S R A G L Q F
		B24	K15me2	Q	G	G	K	A	R	A	K	A	Kme2	S	R	S	S R A G L Q F
		B25	K15me3	Q	G	G	K	A	R	A	K	A	Kme3	S	R	S	S R A G L Q F
		B26	K15ac	Q	G	G	K	A	R	A	K	A	Kac	S	R	S	S R A G L Q F
		B27	pS16	Q	G	G	K	A	R	A	K	A	K	pS	R	S	S R A G L Q F
		B28	K13me/K15me	Q	G	G	K	A	R	A	Kme	A	Kme	S	R	S	S R A G L Q F
		B29	K13me/K15me2	Q	G	G	K	A	R	A	Kme	A	Kme2	S	R	S	S R A G L Q F
		B30	K13me/K15me3	Q	G	G	K	A	R	A	Kme	A	Kme3	S	R	S	S R A G L Q F
		B31	K13me/K15ac	Q	G	G	K	A	R	A	Kme	A	Kac	S	R	S	S R A G L Q F
		B32	K13me2/K15me	Q	G	G	K	A	R	A	Kme2	A	Kme	S	R	S	S R A G L Q F
		B33	K13me2/K15me2	Q	G	G	K	A	R	A	Kme2	A	Kme2	S	R	S	S R A G L Q F
		B34	K13me2/K15me3	Q	G	G	K	A	R	A	Kme2	A	Kme3	S	R	S	S R A G L Q F
		B35	K13me2/K15ac	Q	G	G	K	A	R	A	Kme2	A	Kac	S	R	S	S R A G L Q F
		B36	K13me3/K15me	Q	G	G	K	A	R	A	Kme3	A	Kme	S	R	S	S R A G L Q F
		B37	K13me3/K15me2	Q	G	G	K	A	R	A	Kme3	A	Kme2	S	R	S	S R A G L Q F
		C1	K13me3/K15me3	Q	G	G	K	A	R	A	Kme3	A	Kme3	S	R	S	S R A G L Q F
		C2	K13me3/K15ac	Q	G	G	K	A	R	A	Kme3	A	Kac	S	R	S	S R A G L Q F
		C3	K13ac/K15me	Q	G	G	K	A	R	A	Kac	A	Kme	S	R	S	S R A G L Q F
		C4	K13ac/K15me2	Q	G	G	K	A	R	A	Kac	A	Kme2	S	R	S	S R A G L Q F
		C5	K13ac/K15me3	Q	G	G	K	A	R	A	Kac	A	Kme3	S	R	S	S R A G L Q F
		C6	K13ac/K15ac	Q	G	G	K	A	R	A	Kac	A	Kac	S	R	S	S R A G L Q F
		C7	K13me/pS16	Q	G	G	K	A	R	A	Kme	A	K	pS	R	S	S R A G L Q F
		C8	K13me2/pS16	Q	G	G	K	A	R	A	Kme2	A	K	pS	R	S	S R A G L Q F
		C9	K13me3/pS16	Q	G	G	K	A	R	A	Kme3	A	K	pS	R	S	S R A G L Q F
		C10	K13ac/pS16	Q	G	G	K	A	R	A	Kac	A	K	pS	R	S	S R A G L Q F
		C11	K15me/pS16	Q	G	G	K	A	R	A	K	A	Kme	pS	R	S	S R A G L Q F
		C12	K15me2/pS16	Q	G	G	K	A	R	A	K	A	Kme2	pS	R	S	S R A G L Q F
		C13	K15me3/pS16	Q	G	G	K	A	R	A	K	A	Kme3	pS	R	S	S R A G L Q F
		C14	K15ac/pS16	Q	G	G	K	A	R	A	K	A	Kac	pS	R	S	S R A G L Q F
		C15	K13me/K15me/pS16	Q	G	G	K	A	R	A	Kme	A	Kme	pS	R	S	S R A G L Q F
		C16	K13me/K15me2/pS16	Q	G	G	K	A	R	A	Kme	A	Kme2	pS	R	S	S R A G L Q F
		C17	K13me/K15me3/pS16	Q	G	G	K	A	R	A	Kme	A	Kme3	pS	R	S	S R A G L Q F
		C18	K13me/K15ac/pS16	Q	G	G	K	A	R	A	Kme	A	Kac	pS	R	S	S R A G L Q F
		C19	K13me2/K15me														

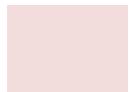
	C28	K13ac/K15me2/pS16	Q G G K A R A Kac A Kme2 pS R S S R A G L Q F	
	C29	K13ac/K15me3/pS16	Q G G K A R A Kac A Kme3 pS R S S R A G L Q F	
	C30	K13ac/K15ac/pS16	Q G G K A R A Kac A Kac pS R S S R A G L Q F	
	C31	pS18	Q G G K A R A K A K S R pS S R A G L Q F	
	C32	K13me/pS18	Q G G K A R A Kme A K S R pS S R A G L Q F	
	C33	K13me2/pS18	Q G G K A R A Kme2 A K S R pS S R A G L Q F	
	C34	K13me3/pS18	Q G G K A R A Kme3 A K S R pS S R A G L Q F	
	C35	K13ac/pS18	Q G G K A R A Kac A K S R pS S R A G L Q F	
	C36	K15me/pS18	Q G G K A R A K A Kme S R pS S R A G L Q F	
	C37	K15me2/pS18	Q G G K A R A K A Kme2 S R pS S R A G L Q F	
	D1	K15me3/pS18	Q G G K A R A K A Kme3 S R pS S R A G L Q F	
	D2	K15ac/pS18	Q G G K A R A K A Kac S R pS S R A G L Q F	
	D3	K13me/K15me/pS18	Q G G K A R A Kme A Kme S R pS S R A G L Q F	
	D4	K13me/K15me2/pS18	Q G G K A R A Kme A Kme2 S R pS S R A G L Q F	
	D5	K13me/K15me3/pS18	Q G G K A R A Kme A Kme3 S R pS S R A G L Q F	
	D6	K13me/K15ac/pS18	Q G G K A R A Kme A Kac S R pS S R A G L Q F	
	D7	K13me2/K15me/pS18	Q G G K A R A Kme2 A Kme S R pS S R A G L Q F	
	D8	K13me2/K15me2/pS18	Q G G K A R A Kme2 A Kme2 S R pS S R A G L Q F	
	D9	K13me2/K15me3/pS18	Q G G K A R A Kme2 A Kme3 S R pS S R A G L Q F	
	D10	K13me2/K15ac/pS18	Q G G K A R A Kme2 A Kac S R pS S R A G L Q F	
	D11	K13me3/K15me/pS18	Q G G K A R A Kme3 A Kme S R pS S R A G L Q F	
	D12	K13me3/K15me2/pS18	Q G G K A R A Kme3 A Kme2 S R pS S R A G L Q F	
	D13	K13me3/K15me3/pS18	Q G G K A R A Kme3 A Kme3 S R pS S R A G L Q F	
	D14	K13me3/K15ac/pS18	Q G G K A R A Kme3 A Kac S R pS S R A G L Q F	
	D15	K13ac/K15me/pS18	Q G G K A R A Kac A Kme S R pS S R A G L Q F	
	D16	K13ac/K15me2/pS18	Q G G K A R A Kac A Kme2 S R pS S R A G L Q F	
	D17	K13ac/K15me3/pS18	Q G G K A R A Kac A Kme3 S R pS S R A G L Q F	
	D18	K13ac/K15ac/pS18	Q G G K A R A Kac A Kac S R pS S R A G L Q F	
	D19	pS19	Q G G K A R A K A K S R S pS R A G L Q F	
	D20	K13me/K15me/pS19	Q G G K A R A K A Kme A Kme S R S pS R A G L Q F	
	D21	K13me/K15me2/pS19	Q G G K A R A K A Kme A Kme2 S R S pS R A G L Q F	
	D22	K13me/K15me3/pS19	Q G G K A R A K A Kme A Kme3 S R S pS R A G L Q F	
	D23	K13me/K15ac/pS19	Q G G K A R A K A Kme A Kac S R S pS R A G L Q F	
	D24	K13me2/K15me/pS19	Q G G K A R A K A Kme2 A Kme S R S pS R A G L Q F	
	D25	K13me2/K15me2/pS19	Q G G K A R A K A Kme2 A Kme2 S R S pS R A G L Q F	
	D26	K13me2/K15me3/pS19	Q G G K A R A K A Kme2 A Kme3 S R S pS R A G L Q F	
	D27	K13me2/K15ac/pS19	Q G G K A R A K A Kme2 A Kac S R S pS R A G L Q F	
	D28	K13me3/K15me/pS19	Q G G K A R A K A Kme3 A Kme S R S pS R A G L Q F	
	D29	K13me3/K15me2/pS19	Q G G K A R A K A Kme3 A Kme2 S R S pS R A G L Q F	
	D30	K13me3/K15me3/pS19	Q G G K A R A K A Kme3 A Kme3 S R S pS R A G L Q F	
	D31	K13me3/K15ac/pS19	Q G G K A R A K A Kme3 A Kac S R S pS R A G L Q F	
	D32	K13ac/K15me/pS19	Q G G K A R A K A Kac A Kme S R S pS R A G L Q F	
	D33	K13ac/K15me2/pS19	Q G G K A R A K A Kac A Kme2 S R S pS R A G L Q F	
	D34	K13ac/K15me3/pS19	Q G G K A R A K A Kac A Kme3 S R S pS R A G L Q F	
	D35	K13ac/K15ac/pS19	Q G G K A R A K A Kac A Kac S R S pS R A G L Q F	
	D36	Blank		
11-30	D37	CONTROL	R A K A K S R S S R A G L Q F P V G R V	
	E1	K15me	R A K A K Kme S R S S R A G L Q F P V G R V	
	E2	K15me2	R A K A K Kme2 S R S S R A G L Q F P V G R V	
	E3	K15me3	R A K A K Kme3 S R S S R A G L Q F P V G R V	
	E4	K15ac	R A K A K Kac S R S S R A G L Q F P V G R V	
	E5	pS16	R A K A K pS R S S S R A G L Q F P V G R V	
	E6	pS18	R A K A K S R pS R S S R A G L Q F P V G R V	
	E7	pS19	R A K A K S R S pS R A G L Q F P V G R V	
	E8	K15me/pS16	R A K A K Kme pS R S S S R A G L Q F P V G R V	
	E9	K15me2/pS16	R A K A K Kme2 pS R S S S R A G L Q F P V G R V	
	E10	K15me3/pS16	R A K A K Kme3 pS R S S S R A G L Q F P V G R V	
	E11	K15ac/pS16	R A K A K Kac pS R S S S R A G L Q F P V G R V	
	E12	K15me/pS18	R A K A K Kme S R pS R A G L Q F P V G R V	
	E13	K15me2/pS18	R A K A K Kme2 S R pS R A G L Q F P V G R V	
	E14	K15me3/pS18	R A K A K Kme3 S R pS R A G L Q F P V G R V	
	E15	K15ac/pS18	R A K A K Kac S R pS R A G L Q F P V G R V	
	E16	K15me/pS19	R A K A K Kme S R S pS R A G L Q F P V G R V	
	E17	K15me2/pS19	R A K A K Kme2 S R S pS R A G L Q F P V G R V	
	E18	K15me3/pS19	R A K A K Kme3 S R S pS R A G L Q F P V G R V	
	E19	K15ac/pS19	R A K A K Kac S R S pS R A G L Q F P V G R V	
	E20	Blank		
27-46	E21	CONTROL	V G R V H R L L R K G N Y A E R V G A G	
	E22	K36me	V G R V H R L L R Kme G N Y A E R V G A G	
	E23	K36me2	V G R V H R L L R Kme2 G N Y A E R V G A G	
	E24	K36me3	V G R V H R L L R Kme3 G N Y A E R V G A G	
	E25	K36ac	V G R V H R L L R Kac G N Y A E R V G A G	

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence																			
polyHis CTRL		A1	HHHHHHHHH	S	G	R	G	K	T	G	G	K	A	R	A	K	A	K	S	R			
		A2	HHHHHHHHH	S	G	R	G	Kme2	T	G	G	K	A	R	A	K	A	K	S	R			
		A3	Blank	S	G	R	G	Kme3	T	G	G	K	A	R	A	K	A	K	S	R			
H2A.X (P16104)	1-20	A4	CONTROL	S	G	R	G	K	T	G	G	K	A	R	A	K	A	K	S	R			
		A5	K5me	S	G	R	G	Kme	T	G	G	K	A	R	A	K	A	K	S	R			
		A6	K5me2	S	G	R	G	Kme2	T	G	G	K	A	R	A	K	A	K	S	R			
		A7	K5me3	S	G	R	G	Kme3	T	G	G	K	A	R	A	K	A	K	S	R			
		A8	K5ac	S	G	R	G	Kac	T	G	G	K	A	R	A	K	A	K	S	R			
		A9	pT6	S	G	R	G	K	T	G	G	K	A	R	A	K	A	K	S	R			
		A10	K9me	S	G	R	G	K	T	G	G	Kme2	A	R	A	K	A	K	S	R			
		A11	K9me2	S	G	R	G	K	T	G	G	Kme3	A	R	A	K	A	K	S	R			
		A12	K9me3	S	G	R	G	K	T	G	G	Kac	A	R	A	K	A	K	S	R			
		A13	K9ac	S	G	R	G	K	T	G	G	Kac	A	R	A	K	A	K	S	R			
		A14	K5me/pT6	S	G	R	G	Kme	pT	G	G	K	A	R	A	K	A	K	S	R			
		A15	K5me2/pT6	S	G	R	G	Kme2	pT	G	G	K	A	R	A	K	A	K	S	R			
		A16	K5me3/pT6	S	G	R	G	Kme3	pT	G	G	K	A	R	A	K	A	K	S	R			
		A17	K5ac/pT6	S	G	R	G	Kac	pT	G	G	K	A	R	A	K	A	K	S	R			
		A18	pT6/K9me	S	G	R	G	K	pT	G	G	Kme	A	R	A	K	A	K	S	R			
		A19	pT6/K9me2	S	G	R	G	K	pT	G	G	Kme2	A	R	A	K	A	K	S	R			
		A20	pT6/K9me3	S	G	R	G	K	pT	G	G	Kme3	A	R	A	K	A	K	S	R			
		A21	pT6/K9ac	S	G	R	G	K	pT	G	G	Kac	A	R	A	K	A	K	S	R			
		A22	K5me/pT6/K9me	S	G	R	G	Kme	pT	G	G	Kme	A	R	A	K	A	K	S	R			
		A23	K5me/pT6/K9me2	S	G	R	G	Kme	pT	G	G	Kme2	A	R	A	K	A	K	S	R			
		A24	K5me/pT6/K9me3	S	G	R	G	Kme	pT	G	G	Kme3	A	R	A	K	A	K	S	R			
		A25	K5me/pT6/K9ac	S	G	R	G	Kme	pT	G	G	Kac	A	R	A	K	A	K	S	R			
		A26	K5me2/pT6/K9me	S	G	R	G	Kme2	pT	G	G	Kme	A	R	A	K	A	K	S	R			
		A27	K5me2/pT6/K9me2	S	G	R	G	Kme2	pT	G	G	Kme2	A	R	A	K	A	K	S	R			
		A28	K5me2/pT6/K9me3	S	G	R	G	Kme2	pT	G	G	Kme3	A	R	A	K	A	K	S	R			
		A29	K5me2/pT6/K9ac	S	G	R	G	Kme2	pT	G	G	Kac	A	R	A	K	A	K	S	R			
		A30	K5me3/pT6/K9me	S	G	R	G	Kme3	pT	G	G	Kme	A	R	A	K	A	K	S	R			
		A31	K5me3/pT6/K9me2	S	G	R	G	Kme3	pT	G	G	Kme2	A	R	A	K	A	K	S	R			
		A32	K5me3/pT6/K9me3	S	G	R	G	Kme3	pT	G	G	Kme3	A	R	A	K	A	K	S	R			
		A33	K5me3/pT6/K9ac	S	G	R	G	Kme3	pT	G	G	Kac	A	R	A	K	A	K	S	R			
		A34	K5ac/pT6/K9me	S	G	R	G	Kac	pT	G	G	Kme	A	R	A	K	A	K	S	R			
		A35	K5ac/pT6/K9me2	S	G	R	G	Kac	pT	G	G	Kme2	A	R	A	K	A	K	S	R			
		A36	K5ac/pT6/K9me3	S	G	R	G	Kac	pT	G	G	Kme3	A	R	A	K	A	K	S	R			
		A37	K5ac/pT6/K9ac	S	G	R	G	Kac	pT	G	G	Kac	A	R	A	K	A	K	S	R			
		B1	Blank																				
H2A.X (P16104)	6-25	B2	CONTROL	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B3	K127me	T	V	G	P	Kme	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B4	K127me2	T	V	G	P	Kme2	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B5	K127me3	T	V	G	P	Kme3	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B6	K127ac	T	V	G	P	Kac	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B7	pS130	T	V	G	P	K	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B8	K133me	T	V	G	P	K	A	P	S	G	G	Kme	K	A	T	Q	A	S	Q	E	Y
		B9	K133me2	T	V	G	P	K	A	P	S	G	G	Kme2	K	A	T	Q	A	S	Q	E	Y
		B10	K133me3	T	V	G	P	K	A	P	S	G	G	Kme3	K	A	T	Q	A	S	Q	E	Y
		B11	K133ac	T	V	G	P	K	A	P	S	G	G	Kac	K	A	T	Q	A	S	Q	E	Y
		B12	K134me	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B13	K134me2	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B14	K134me3	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B15	K134ac	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B16	pS136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B17	pS139	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	pS	Q	E	Y
		B18	K127me/pS130	T	V	G	P	Kme	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B19	K127me2/pS130	T	V	G	P	Kme2	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B20	K127me3/pS130	T	V	G	P	Kme3	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B21	K127ac/pS130	T	V	G	P	Kac	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B22	pS130/K133me	T	V	G	P	K	A	P	pS	G	G	Kme	K	A	T	Q	A	S	Q	E	Y
		B23	pS130/K133me2	T	V	G	P	K	A	P	pS	G	G	Kme2	K	A	T	Q	A	S	Q	E	Y
		B24	pS130/K133me3	T	V	G	P	K	A	P	pS	G	G	Kme3	K	A	T	Q	A	S	Q	E	Y
		B25	pS130/K133ac	T	V	G	P	K	A	P	pS	G	G	Kac	K	A	T	Q	A	S	Q	E	Y
		B26	pS130/K134me	T	V	G	P	K	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B27	pS130/K134me2	T	V	G	P	K	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B28	pS130/K134me3	T	V	G	P	K	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B29	pS130/K134ac	T	V	G	P	K	A	P	pS	G	G	K	K	A	T	Q	A	S	Q	E	Y
		B30	K133me/pT136	T	V	G	P	K	A	P	S	G	G	Kme	K	A	pT	Q	A	S	Q	E	Y
		B31	K133me2/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B32	K133me3/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B33	K133ac/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B34	K134me/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B35	K134me2/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B36	K134me3/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		B37	K134ac/pT136	T	V	G	P	K	A	P	S	G	G	K	K	A	pT	Q	A	S	Q	E	Y
		C1	K133me/pS139	T	V	G	P	K	A	P	S	G	G	Kme	K	A	T	Q	A	pS	Q	E	Y
		C2	K133me2/pS139	T	V	G	P	K	A	P	S	G	G	Kme2	K	A	T	Q	A	pS	Q	E	Y
		C3	K133me3/pS139	T	V	G	P	K	A	P	S	G	G	Kme3	K	A	T	Q	A	pS	Q	E	Y
		C4	K133ac/pS139	T	V	G	P	K	A	P	S	G	G	Kac	K	A	T	Q	A	pS	Q	E	Y
		C5	K134me/pS139	T	V	G	P	K	A	P	S	G	G	K	K	A	T	Q	A	pS	Q	E	Y
		C6</																					

C28	K127me/K134ac	T V G P	Kme	A P S	G G	K	Kac	A T Q A S Q E Y
C29	K127me2/K134me	T V G P	Kme2	A P S	G G	K	Kme	A T Q A S Q E Y
C30	K127me2/K134me2	T V G P	Kme2	A P S	G G	K	Kme2	A T Q A S Q E Y
C31	K127me2/K134me3	T V G P	Kme2	A P S	G G	K	Kme3	A T Q A S Q E Y
C32	K127me2/K134ac	T V G P	Kme2	A P S	G G	K	Kac	A T Q A S Q E Y
C33	K127me3/K134me	T V G P	Kme3	A P S	G G	K	Kme	A T Q A S Q E Y
C34	K127me3/K134me2	T V G P	Kme3	A P S	G G	K	Kme2	A T Q A S Q E Y
C35	K127me3/K134me3	T V G P	Kme3	A P S	G G	K	Kme3	A T Q A S Q E Y
C36	K127me3/K134ac	T V G P	Kme3	A P S	G G	K	Kac	A T Q A S Q E Y
C37	K127ac/K134me	T V G P	Kac	A P S	G G	K	Kme	A T Q A S Q E Y
D1	K127ac/K134me2	T V G P	Kac	A P S	G G	K	Kme2	A T Q A S Q E Y
D2	K127ac/K134me3	T V G P	Kac	A P S	G G	K	Kme3	A T Q A S Q E Y
D3	K127ac/K134ac	T V G P	Kac	A P S	G G	K	Kac	A T Q A S Q E Y
D4	K127ac/K133ac/K134ac	T V G P	Kac	A P S	G G	Kac	Kac	A T Q A S Q E Y
D5	K127ac/K133ac/K134ac/pS139	T V G P	Kac	A P S	G G	Kac	Kac	A T Q A pS Q E Y

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence																			
polyHis CTRL			A1 HHHHHHHH																				
polyHis CTRL			A2 HHHHHHHH																				
			A3 Blank																				
H2A.Z (P0C0S5)	1-20	A4	CONTROL	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A5	K4me	A G G	Kme	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A6	K4me2	A G G	Kme2	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A7	K4me3	A G G	Kme3	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A8	K4ac	A G G	Kac	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A9	K7me	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A10	K7me2	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A11	K7me3	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A12	K7ac	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A13	pS9	A G G	K	A	G	K	D	pS	G	K	A	K	T	K	A	V	S	R	S		
		A14	K11me	A G G	K	A	G	K	D	S	G	K	A	K	T	K	A	V	S	R	S		
		A15	K11me2	A G G	K	A	G	K	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		A16	K11me3	A G G	K	A	G	K	D	S	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		A17	K11ac	A G G	K	A	G	K	D	S	G	K	Kac	A	K	K	T	K	A	V	S	R	S
		A18	K13me	A G G	K	A	G	K	D	S	G	K	K	A	K	K	T	K	A	V	S	R	S
		A19	K13me2	A G G	K	A	G	K	D	S	G	K	K	A	K	K	T	K	A	V	S	R	S
		A20	K13me3	A G G	K	A	G	K	D	S	G	K	K	A	K	K	T	K	A	V	S	R	S
		A21	K13ac	A G G	K	A	G	K	D	S	G	K	Kac	A	K	K	T	K	A	V	S	R	S
		A22	K4me/K7me	A G G	Kme	A	G	Kme	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A23	K4me/K7me2	A G G	Kme	A	G	Kme2	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A24	K4me/K7me3	A G G	Kme	A	G	Kme3	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A25	K4me/K7ac	A G G	Kme	A	G	Kac	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A26	K4me2/K7me	A G G	Kme2	A	G	Kme	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A27	K4me2/K7me2	A G G	Kme2	A	G	Kme2	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A28	K4me2/K7me3	A G G	Kme2	A	G	Kme3	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A29	K4me2/K7ac	A G G	Kme2	A	G	Kac	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A30	K4me3/K7me	A G G	Kme3	A	G	Kme	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A31	K4me3/K7me2	A G G	Kme3	A	G	Kme2	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A32	K4me3/K7me3	A G G	Kme3	A	G	Kme3	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A33	K4me3/K7ac	A G G	Kme3	A	G	Kac	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A34	K4ac/K7me	A G G	Kac	A	G	Kme	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A35	K4ac/K7me2	A G G	Kac	A	G	Kme2	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A36	K4ac/K7me3	A G G	Kac	A	G	Kme3	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		A37	K4ac/K7ac	A G G	Kac	A	G	Kac	D	S	G	K	K	A	K	T	K	A	V	S	R	S	
		B1	K4me/pS9	A G G	Kme	A	G	K	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B2	K4me2/pS9	A G G	Kme2	A	G	K	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B3	K4me3/pS9	A G G	Kme3	A	G	K	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B4	K4ac/pS9	A G G	Kac	A	G	K	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B5	K7me/pS9	A G G	K	A	G	Kme	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B6	K7me2/pS9	A G G	K	A	G	Kme2	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B7	K7me3/pS9	A G G	K	A	G	Kme3	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B8	K7ac/pS9	A G G	K	A	G	Kac	D	pS	G	K	K	A	K	T	K	A	V	S	R	S	
		B9	pS9/K11me	A G G	K	A	G	K	D	pS	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B10	pS9/K11me2	A G G	K	A	G	K	D	pS	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B11	pS9/K11me3	A G G	K	A	G	K	D	pS	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B12	pS9/K11ac	A G G	K	A	G	K	D	pS	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B13	K7me/K11me	A G G	K	A	G	Kme	D	S	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B14	K7me2/K11me2	A G G	K	A	G	Kme	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B15	K7me3/K11me3	A G G	K	A	G	Kme	D	S	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B16	K7me/K11ac	A G G	K	A	G	Kme	D	S	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B17	K7me2/K11me	A G G	K	A	G	Kme2	D	S	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B18	K7me2/K11me2	A G G	K	A	G	Kme2	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B19	K7me2/K11me3	A G G	K	A	G	Kme2	D	S	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B20	K7me2/K11ac	A G G	K	A	G	Kme2	D	S	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B21	K7me3/K11me	A G G	K	A	G	Kme3	D	S	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B22	K7me3/K11me2	A G G	K	A	G	Kme3	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B23	K7me3/K11me3	A G G	K	A	G	Kme3	D	S	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B24	K7me3/K11ac	A G G	K	A	G	Kme3	D	S	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B25	K7ac/K11me	A G G	K	A	G	Kac	D	S	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B26	K7ac/K11me2	A G G	K	A	G	Kac	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B27	K7ac/K11me3	A G G	K	A	G	Kac	D	S	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B28	K7ac/K11ac	A G G	K	A	G	Kac	D	S	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B29	K7me/pS9/K11me	A G G	K	A	G	Kme	D	pS	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B30	K7me/pS9/K11me2	A G G	K	A	G	Kme	D	pS	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B31	K7me/pS9/K11me3	A G G	K	A	G	Kme	D	pS	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B32	K7me/pS9/K11ac	A G G	K	A	G	Kme	D	pS	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B33	K7me2/pS9/K11me	A G G	K	A	G	Kme2	D	pS	G	K	Kme	A	K	T	K	A	V	S	R	S	
		B34	K7me2/pS9/K11me2	A G G	K	A	G	Kme2	D	pS	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		B35	K7me2/pS9/K11me3	A G G	K	A	G	Kme2	D	pS	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		B36	K7me2/pS9/K11ac	A G G	K	A	G	Kme2	D	pS	G	K	Kac	A	K	T	K	A	V	S	R	S	
		B37	K7me3/pS9/K11me	A G G	K	A	G	Kme3	D	pS	G	K	Kme	A	K	T	K	A	V	S	R	S	
		C1	K7me3/pS9/K11me2	A G G	K	A	G	Kme3	D	pS	G	K	Kme2	A	K	T	K	A	V	S	R	S	
		C2	K7me3/pS9/K11me3	A G G	K	A	G	Kme3	D	pS	G	K	Kme3	A	K	T	K	A	V	S	R	S	
		C3	K7me3/pS9/K11ac	A G G	K	A	G	Kme3	D	pS	G	K	Kac	A	K	T	K	A	V	S	R	S	
		C4	K7ac/pS9/K11me	A G G	K	A	G	Kac	D	S	G	K	Kme	A	K	T	K	A	V	S	R	S	
		C5	K7ac/pS9/K11me2	A G G	K	A	G	Kac	D	S	G	K	Kme2	A	K	T	K	A	V	S	R	S	

C33	K13ac	G K D	S G	K A	Kac	T K	A V	S R S Q R A G L
C34	pT14	G K D	S G	K A	K pT	K	A V	S R S Q R A G L
C35	K15me	G K D	S G	K A	K	T Kme	A V	S R S Q R A G L
C36	K15me2	G K D	S G	K A	K	T Kme2	A V	S R S Q R A G L
C37	K15me3	G K D	S G	K A	K	T Kme3	A V	S R S Q R A G L
D1	K15ac	G K D	S G	K A	K	T Kac	A V	S R S Q R A G L
D2	K11me/K13me	G K D	S G	Kme	A Kme	T K	A V	S R S Q R A G L
D3	K11me/K13me2	G K D	S G	Kme	A Kme2	T K	A V	S R S Q R A G L
D4	K11me/K13me3	G K D	S G	Kme	A Kme3	T K	A V	S R S Q R A G L
D5	K11me/K13ac	G K D	S G	Kme	A Kac	T K	A V	S R S Q R A G L
D6	K11me2/K13me	G K D	S G	Kme2	A Kme	T K	A V	S R S Q R A G L
D7	K11me2/K13me2	G K D	S G	Kme2	A Kme2	T K	A V	S R S Q R A G L
D8	K11me2/K13me3	G K D	S G	Kme2	A Kme3	T K	A V	S R S Q R A G L
D9	K11me2/K13ac	G K D	S G	Kme2	A Kac	T K	A V	S R S Q R A G L
D10	K11me3/K13me	G K D	S G	Kme3	A Kme	T K	A V	S R S Q R A G L
D11	K11me3/K13me2	G K D	S G	Kme3	A Kme2	T K	A V	S R S Q R A G L
D12	K11me3/K13me3	G K D	S G	Kme3	A Kme3	T K	A V	S R S Q R A G L
D13	K11me3/K13ac	G K D	S G	Kme3	A Kac	T K	A V	S R S Q R A G L
D14	K11ac/K13me	G K D	S G	Kac	A Kme	T K	A V	S R S Q R A G L
D15	K11ac/K13me2	G K D	S G	Kac	A Kme2	T K	A V	S R S Q R A G L
D16	K11ac/K13me3	G K D	S G	Kac	A Kme3	T K	A V	S R S Q R A G L
D17	K11ac/K13ac	G K D	S G	Kac	A Kac	T K	A V	S R S Q R A G L
D18	K11me/K15me	G K D	S G	Kme	A K	T Kme	A V	S R S Q R A G L
D19	K11me/K15me2	G K D	S G	Kme	A K	T Kme2	A V	S R S Q R A G L
D20	K11me/K15me3	G K D	S G	Kme	A K	T Kme3	A V	S R S Q R A G L
D21	K11me/K15ac	G K D	S G	Kme	A K	T Kac	A V	S R S Q R A G L
D22	K11me2/K15me	G K D	S G	Kme2	A K	T Kme	A V	S R S Q R A G L
D23	K11me2/K15me2	G K D	S G	Kme2	A K	T Kme2	A V	S R S Q R A G L
D24	K11me2/K15me3	G K D	S G	Kme2	A K	T Kme3	A V	S R S Q R A G L
D25	K11me2/K15ac	G K D	S G	Kme2	A K	T Kac	A V	S R S Q R A G L
D26	K11me3/K15me	G K D	S G	Kme3	A K	T Kme	A V	S R S Q R A G L
D27	K11me3/K15me2	G K D	S G	Kme3	A K	T Kme2	A V	S R S Q R A G L
D28	K11me3/K15me3	G K D	S G	Kme3	A K	T Kme3	A V	S R S Q R A G L
D29	K11me3/K15ac	G K D	S G	Kme3	A K	T Kac	A V	S R S Q R A G L
D30	K11ac/K15me	G K D	S G	Kac	A K	T Kme	A V	S R S Q R A G L
D31	K11ac/K15me2	G K D	S G	Kac	A K	T Kme2	A V	S R S Q R A G L
D32	K11ac/K15me3	G K D	S G	Kac	A K	T Kme3	A V	S R S Q R A G L
D33	K11ac/K15ac	G K D	S G	Kac	A K	T Kac	A V	S R S Q R A G L
D34	K11me/pT14	G K D	S G	Kme	A K	pT K	A V	S R S Q R A G L
D35	K11me2/pT14	G K D	S G	Kme2	A K	pT K	A V	S R S Q R A G L
D36	K11me3/pT14	G K D	S G	Kme3	A K	pT K	A V	S R S Q R A G L
D37	K11ac/pT14	G K D	S G	Kac	A K	pT K	A V	S R S Q R A G L
E1	K13me/pT14	G K D	S G	K	A Kme	pT K	A V	S R S Q R A G L
E2	K13me2/pT14	G K D	S G	K	A Kme2	pT K	A V	S R S Q R A G L
E3	K13me3/pT14	G K D	S G	K	A Kme3	pT K	A V	S R S Q R A G L
E4	K13ac/pT14	G K D	S G	K	A Kac	pT K	A V	S R S Q R A G L
E5	pT14/K15me	G K D	S G	K	A K	pT Kme	A V	S R S Q R A G L
E6	pT14/K15me2	G K D	S G	K	A K	pT Kme2	A V	S R S Q R A G L
E7	pT14/K15me3	G K D	S G	K	A K	pT Kme3	A V	S R S Q R A G L
E8	pT14/K15ac	G K D	S G	K	A K	pT Kac	A V	S R S Q R A G L
E9	K11me/K13me/pT14	G K D	S G	Kme	A Kme	pT K	A V	S R S Q R A G L
E10	K11me/K13me2/pT14	G K D	S G	Kme	A Kme2	pT K	A V	S R S Q R A G L
E11	K11me/K13me3/pT14	G K D	S G	Kme	A Kme3	pT K	A V	S R S Q R A G L
E12	K11me/K13ac/pT14	G K D	S G	Kme	A Kac	pT K	A V	S R S Q R A G L
E13	K11me2/K13me/pT14	G K D	S G	Kme2	A Kme	pT K	A V	S R S Q R A G L
E14	K11me2/K13me2/pT14	G K D	S G	Kme2	A Kme2	pT K	A V	S R S Q R A G L
E15	K11me2/K13me3/pT14	G K D	S G	Kme2	A Kme3	pT K	A V	S R S Q R A G L
E16	K11me2/K13ac/pT14	G K D	S G	Kme2	A Kac	pT K	A V	S R S Q R A G L
E17	K11me3/K13me/pT14	G K D	S G	Kme3	A Kme	pT K	A V	S R S Q R A G L
E18	K11me3/K13me2/pT14	G K D	S G	Kme3	A Kme2	pT K	A V	S R S Q R A G L
E19	K11me3/K13me3/pT14	G K D	S G	Kme3	A Kme3	pT K	A V	S R S Q R A G L
E20	K11me3/K13ac/pT14	G K D	S G	Kme3	A Kac	pT K	A V	S R S Q R A G L
E21	K11ac/K13me/pT14	G K D	S G	Kac	A Kme	pT K	A V	S R S Q R A G L
E22	K11ac/K13me2/pT14	G K D	S G	Kac	A Kme2	pT K	A V	S R S Q R A G L
E23	K11ac/K13me3/pT14	G K D	S G	Kac	A Kme3	pT K	A V	S R S Q R A G L
E24	K11ac/K13ac/pT14	G K D	S G	Kac	A Kac	pT K	A V	S R S Q R A G L
E25	K11me/pT14/K15me	G K D	S G	Kme	A K	pT Kme	A V	S R S Q R A G L
E26	K11me/pT14/K15me2	G K D	S G	Kme	A K	pT Kme2	A V	S R S Q R A G L
E27	K11me/pT14/K15me3	G K D	S G	Kme	A K	pT Kme3	A V	S R S Q R A G L
E28	K11me/pT14/K15ac	G K D	S G	Kme	A K	pT Kac	A V	S R S Q R A G L
E29	K11me2/pT14/K15me	G K D	S G	Kme2	A K	pT Kme	A V	S R S Q R A G L
E30	K11me2/pT14/K15me2	G K D	S G	Kme2	A K	pT Kme2	A V	S R S Q R A G L
E31	K11me2/pT14/K15me3	G K D	S G	Kme2	A K	pT Kme3	A V	S R S Q R A G L
E32	K11me2/pT14/K15ac	G K D	S G	Kme2	A K	pT Kac	A V	S R S Q R A G L
E33	K11me3/pT14/K15me	G K D	S G	Kme3	A K	pT Kme	A V	S R S Q R A G L
E34	K11me3/pT14/K15me2	G K D	S G	Kme3	A K	pT Kme2	A V	S R S Q R A G L
E35	K11me3/pT14/K15me3	G K D	S G	Kme3	A K	pT Kme3	A V	S R S Q R A G L
E36	K11me3/pT14/K15ac	G K D	S G	Kme3	A K	pT Kac	A V	S R S Q R A G L
E37	K11ac/pT14/K15me	G K D	S G	Kac	A K	pT Kme	A V	S R S Q R A G L
F1	K11ac/pT14/K15me2	G K D	S G	Kac	A K	pT Kme2	A V	S R S Q R A G L
F2	K11ac/pT14/K15me3	G K D	S G	Kac	A K	pT Kme3	A V	S R S Q R A G L
F3	K11ac/pT14/K15ac	G K D	S G	Kac	A K	pT Kac	A V	S R S Q R A G L
F4	K11ac/K13ac/K15ac	G K D	S G	Kac	A K	T Kac	A V	S R S Q R A G L
F5								
F6	CONTROL	K A K	T K	A V	S R	S Q	R R	G L Q F P V G
F7	K15me	K A K	T Kme	A V	S R	S Q	R R	A G L Q F P V G
F8	K15me2	K A K	T Kme2	A V	S R	S Q	R R	A G L Q F P V G
F9	K15me3	K A K	T Kme3	A V	S R	S Q	R R	A G L Q F P V G
F10	K15ac	K A K	T Kac	A V	S R	S Q	R R	A G L Q F P V G
F11	pS18	K A K	T K	A V	S R	S Q	R R	A G L Q F P V G
F12	pS20	K A K	T K	A V	S R	S Q	R R	A G L Q F P V G
F13	K15me/pS18	K A K	T Kme	A V	S R	S Q	R R	A G L Q F P V G
F14	K15me2/pS18	K A K	T Kme2	A V	S R	S Q	R R	A G L Q F P V G
F15	K15me3/pS18	K A K	T Kme3	A V	S R	S Q	R R	A G L Q F P V G
F16	K15ac/pS18	K A K	T Kac	A V	S R	S Q	R R	A G L Q F P V G
F17	K15me/pS20	K A K	T Kme	A V	S R	S Q	R R	A G L Q F P V G
F18	K15me2/pS20	K A K	T Kme2	A V	S R	S Q	R R	A G L Q F P V G
F19	K15me3/pS20	K A K	T Kme3	A V	S R	S Q	R R	A G L Q F P V G
F20	K15ac/pS20	K A K	T Kac	A V	S R	S Q	R R	A G L Q F P V G
F21	K15me/S18/pS20	K A K	T Kme	A V	S R	S Q	R R	A G L Q F P V G
F22	K15me2/pS18/pS20	K A K	T Kme2	A V	S R	S Q	R R	A G L Q F P V G
F23	K15me3/pS18/pS20	K A K	T Kme3	A V	S R	S Q	R R	A G L Q F P V G
F24	K15ac/pS18/pS20	K A K	T Kac	A V	S R	S Q	R R	A G L Q F P V G
F25								
F26	CONTROL	Q F P	V G	R I H R H L K	S R T T S H G R			
F27	K37me	Q F P	V G	R I H R H L Kme	S R T T S H G R			
F28	K37me2	Q F P	V G	R I H R H L Kme2	S R T T S H G R			
F29	K37me3	Q F P	V G	R I H R H L Kme3	S R T T S H G R			
F30	K37ac	Q F P	V G	R I H R H L Kac	S R T T S H G R			



F31	pS38	Q	F	P	V	G	R	I	H	R	H	L	K	pS	R	T	T	S	H	G	R
F32	K37me/pS38	Q	F	P	V	G	R	I	H	R	H	L	Kme	pS	R	T	T	S	H	G	R
F33	K37me2/pS38	Q	F	P	V	G	R	I	H	R	H	L	Kme2	pS	R	T	T	S	H	G	R
F34	K37me3/pS38	Q	F	P	V	G	R	I	H	R	H	L	Kme3	pS	R	T	T	S	H	G	R
F35	K37ac/pS38	Q	F	P	V	G	R	I	H	R	H	L	Kac	pS	R	T	T	S	H	G	R

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence											
polyHis CTRL			A1 HHHHHHHH												
polyHis CTRL			A2 HHHHHHHH												
			A3 Blank												
H2B (Q6Fl13)	1-20	A4	CONTROL	P E P A K S A P A P K K G S K K A V T K	5	9	13	15							
		A5	K5me	P E P A Kme S A P A P K K G S K K A V T K											
		A6	K5me2	P E P A Kme2 S A P A P K K G S S K K A V T K											
		A7	K5me3	P E P A Kme3 S A P A P K K G S S K K A V T K											
		A8	K5ac	P E P A Kac S A P A P K K G S S K K A V T K											
		A9	pS6	P E P A K pS A P A P K K G S S K K A V T K											
		A10	K11me	P E P A K S A P A P K Kme G S S K K A V T K											
		A11	K11me2	P E P A K S A P A P Kme2 G S S K K A V T K											
		A12	K11me3	P E P A K S A P A P Kme3 G S S K K A V T K											
		A13	K11ac	P E P A K S A P A P Kac G S S K K A V T K											
		A14	K12me	P E P A K S A P A P K Kme G S S K K A V T K											
		A15	K12me2	P E P A K S A P A P Kme2 G S S K K A V T K											
		A16	K12me3	P E P A K S A P A P Kme3 G S S K K A V T K											
		A17	K12ac	P E P A K S A P A P Kac G S S K K A V T K											
		A18	pS14	P E P A K S A P A P K K G S pS K K A V T K											
		A19	K5me/pS6	P E P A Kme pS A P A P K K G S S K K A V T K											
		A20	K5me2/pS6	P E P A Kme2 pS A P A P K K G S S K K A V T K											
		A21	K5me3/pS6	P E P A Kme3 pS A P A P K K G S S K K A V T K											
		A22	K5ac/pS6	P E P A Kac pS A P A P K K G S S K K A V T K											
		A23	K5me/K11me	P E P A Kme S A P A P Kme G S S K K A V T K											
		A24	K5me/K11me2	P E P A Kme S A P A P Kme2 G S S K K A V T K											
		A25	K5me/K11me3	P E P A Kme S A P A P Kme3 G S S K K A V T K											
		A26	K5me/K11ac	P E P A Kme S A P A P Kac G S S K K A V T K											
		A27	K5me2/K11me	P E P A Kme2 S A P A P Kme G S S K K A V T K											
		A28	K5me2/K11me2	P E P A Kme2 S A P A P Kme2 G S S K K A V T K											
		A29	K5me2/K11me3	P E P A Kme2 S A P A P Kme3 G S S K K A V T K											
		A30	K5me2/K11ac	P E P A Kme2 S A P A P Kac G S S K K A V T K											
		A31	K5me3/K11me	P E P A Kme3 S A P A P Kme G S S K K A V T K											
		A32	K5me3/K11me2	P E P A Kme3 S A P A P Kme2 G S S K K A V T K											
		A33	K5me3/K11me3	P E P A Kme3 S A P A P Kme3 G S S K K A V T K											
		A34	K5me3/K11ac	P E P A Kme3 S A P A P Kac G S S K K A V T K											
		A35	K5ac/K11me	P E P A Kac S A P A P Kme G S S K K A V T K											
		A36	K5ac/K11me2	P E P A Kac S A P A P Kme2 G S S K K A V T K											
		A37	K5ac/K11me3	P E P A Kac S A P A P Kme3 G S S K K A V T K											
		B1	K5ac/K11ac	P E P A Kac S A P A P Kac G S S K K A V T K											
		B2	K5me/pS6/K11me	P E P A Kme pS A P A P Kme G S S K K A V T K											
		B3	K5me/pS6/K11me2	P E P A Kme pS A P A P Kme2 G S S K K A V T K											
		B4	K5me/pS6/K11me3	P E P A Kme pS A P A P Kme3 G S S K K A V T K											
		B5	K5me/pS6/K11ac	P E P A Kme pS A P A P Kac G S S K K A V T K											
		B6	K5me2/pS6/K11me	P E P A Kme2 pS A P A P Kme G S S K K A V T K											
		B7	K5me2/pS6/K11me2	P E P A Kme2 pS A P A P Kme2 G S S K K A V T K											
		B8	K5me2/pS6/K11me3	P E P A Kme2 pS A P A P Kme3 G S S K K A V T K											
		B9	K5me2/pS6/K11ac	P E P A Kme2 pS A P A P Kac G S S K K A V T K											
		B10	K5me3/pS6/K11me	P E P A Kme3 pS A P A P Kme G S S K K A V T K											
		B11	K5me3/pS6/K11me2	P E P A Kme3 pS A P A P Kme2 G S S K K A V T K											
		B12	K5me3/pS6/K11me3	P E P A Kme3 pS A P A P Kme3 G S S K K A V T K											
		B13	K5me3/pS6/K11ac	P E P A Kme3 pS A P A P Kac G S S K K A V T K											
		B14	K5ac/pS6/K11me	P E P A Kac pS A P A P Kme G S S K K A V T K											
		B15	K5ac/pS6/K11me2	P E P A Kac pS A P A P Kme2 G S S K K A V T K											
		B16	K5ac/pS6/K11me3	P E P A Kac pS A P A P Kme3 G S S K K A V T K											
		B17	K5ac/pS6/K11ac	P E P A Kac pS A P A P Kac G S S K K A V T K											
		B18	K11me/K12me	P E P A K S A P A P Kme G S S K K A V T K											
		B19	K11me/K12me2	P E P A K S A P A P Kme2 G S S K K A V T K											
		B20	K11me/K12me3	P E P A K S A P A P Kme3 G S S K K A V T K											
		B21	K11me/K12ac	P E P A K S A P A P Kac G S S K K A V T K											
		B22	K11me2/K12me	P E P A K S A P A P Kme2 G S S K K A V T K											
		B23	K11me2/K12me2	P E P A K S A P A P Kme2 G S S K K A V T K											
		B24	K11me2/K12me3	P E P A K S A P A P Kme3 G S S K K A V T K											
		B25	K11me2/K12ac	P E P A K S A P A P Kme2 G S S K K A V T K											
		B26	K11me3/K12me	P E P A K S A P A P Kme3 G S S K K A V T K											
		B27	K11me3/K12me2	P E P A K S A P A P Kme3 G S S K K A V T K											
		B28	K11me3/K12me3	P E P A K S A P A P Kme3 G S S K K A V T K											
		B29	K11me3/K12ac	P E P A K S A P A P Kac G S S K K A V T K											
		B30	K11ac/K12me	P E P A K S A P A P Kac G S S K K A V T K											
		B31	K11ac/K12me2	P E P A K S A P A P Kac G S S K K A V T K											
		B32	K11ac/K12me3	P E P A K S A P A P Kac G S S K K A V T K											
		B33	K11ac/K12ac	P E P A K S A P A P Kac G S S K K A V T K											
		B34	K11me/K12me/pS14	P E P A K S A P A P Kme G pS S K K A V T K											
		B35	K11me/K12me2/pS14	P E P A K S A P A P Kme2 G pS S K K A V T K											
		B36	K11me/K12me3/pS14	P E P A K S A P A P Kme3 G pS S K K A V T K											
		B37	K11me/K12ac/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C1	K11me2/K12me/pS14	P E P A K S A P A P Kme G pS S K K A V T K											
		C2	K11me2/K12me2/pS14	P E P A K S A P A P Kme2 G pS S K K A V T K											
		C3	K11me2/K12me3/pS14	P E P A K S A P A P Kme3 G pS S K K A V T K											
		C4	K11me2/K12ac/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C5	K11me3/K12me/pS14	P E P A K S A P A P Kme G pS S K K A V T K											
		C6	K11me3/K12me2/pS14	P E P A K S A P A P Kme2 G pS S K K A V T K											
		C7	K11me3/K12me3/pS14	P E P A K S A P A P Kme3 G pS S K K A V T K											
		C8	K11me3/K12ac/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C9	K11ac/K12me/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C10	K11ac/K12me2/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C11	K11ac/K12me3/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C12	K11ac/K12ac/pS14	P E P A K S A P A P Kac G pS S K K A V T K											
		C13	blank	S A P A P K K K G S K K A V T K Q A Q K K D											
		C14	CONTROL	S A P A P K K K G S K K A V T K Q A Q K K D											
		C15	K11me	S A P A P Kme K G S K K A V T K Q A Q K K D											
		C16	K11me2	S A P A P Kme2 K G S K K A V T K Q A Q K K D											
		C17	K11me3	S A P A P Kme3 K G S K K A V T K Q A Q K K D											
		C18	K11ac	S A P A P Kac K G S K K A V T K Q A Q K K D											
		C19	K12me	S A P A P K Kme G S S K K A V T K Q A Q K K D											
		C20	K12me2	S A P A P K Kme2 G S S K K A V T K Q A Q K K D											
		C21	K12me3	S A P A P K Kme3 G S S K K A V T K Q A Q K K D											
		C22	K12ac	S A P A P Kac K G S pS K K A V T K Q A Q K K D											
		C23	pS14	S A P A P K K G S pS K K A V T K Q A Q K K D											
		C													

D2	K11me2/K12me3	S A P A	P	Kme2	Kme3	G	S	K	K	A	V	T	K	A Q K K D
D3	K11me2/K12ac	S A P A	P	Kme2	Kac	G	S	K	K	A	V	T	K	A Q K K D
D4	K11me3/K12me	S A P A	P	Kme3	Kme	G	S	K	K	A	V	T	K	A Q K K D
D5	K11me3/K12me2	S A P A	P	Kme3	Kme2	G	S	K	K	A	V	T	K	A Q K K D
D6	K11me3/K12me3	S A P A	P	Kme3	Kme3	G	S	K	K	A	V	T	K	A Q K K D
D7	K11me3/K12ac	S A P A	P	Kme3	Kac	G	S	K	K	A	V	T	K	A Q K K D
D8	K11ac/K12me	S A P A	P	Kac	Kme	G	S	K	K	A	V	T	K	A Q K K D
D9	K11ac/K12me2	S A P A	P	Kac	Kme2	G	S	K	K	A	V	T	K	A Q K K D
D10	K11ac/K12me3	S A P A	P	Kac	Kme3	G	S	K	K	A	V	T	K	A Q K K D
D11	K11ac/K12ac	S A P A	P	Kac	Kac	G	S	K	K	A	V	T	K	A Q K K D
D12	K11me/K12me/pS14	S A P A	P	Kme	Kme	G	pS	K	K	A	V	T	K	A Q K K D
D13	K11me/K12me2/pS14	S A P A	P	Kme	Kme2	G	pS	K	K	A	V	T	K	A Q K K D
D14	K11me/K12me3/pS14	S A P A	P	Kme	Kme3	G	pS	K	K	A	V	T	K	A Q K K D
D15	K11me/K12ac/pS14	S A P A	P	Kme	Kac	G	pS	K	K	A	V	T	K	A Q K K D
D16	K11me2/K12me/pS14	S A P A	P	Kme2	Kme	G	pS	K	K	A	V	T	K	A Q K K D
D17	K11me2/K12me2/pS14	S A P A	P	Kme2	Kme2	G	pS	K	K	A	V	T	K	A Q K K D
D18	K11me2/K12me3/pS14	S A P A	P	Kme2	Kme3	G	pS	K	K	A	V	T	K	A Q K K D
D19	K11me2/K12ac/cS14	S A P A	P	Kme2	Kac	G	pS	K	K	A	V	T	K	A Q K K D
D20	K11me3/K12me/pS14	S A P A	P	Kme3	Kme	G	pS	K	K	A	V	T	K	A Q K K D
D21	K11me3/K12me2/pS14	S A P A	P	Kme3	Kme2	G	pS	K	K	A	V	T	K	A Q K K D
D22	K11me3/K12me3/pS14	S A P A	P	Kme3	Kme3	G	pS	K	K	A	V	T	K	A Q K K D
D23	K11me3/K12ac/cS14	S A P A	P	Kme3	Kac	G	pS	K	K	A	V	T	K	A Q K K D
D24	K11ac/K12me/pS14	S A P A	P	Kac	Kme	G	pS	K	K	A	V	T	K	A Q K K D
D25	K11ac/K12me2/pS14	S A P A	P	Kac	Kme2	G	pS	K	K	A	V	T	K	A Q K K D
D26	K11ac/K12me3/pS14	S A P A	P	Kac	Kme3	G	pS	K	K	A	V	T	K	A Q K K D
D27	K11ac/K12ac/cS14	S A P A	P	Kac	Kac	G	pS	K	K	A	V	T	K	A Q K K D
D28	K15me/K16me	S A P A	P	K	K	G	S	Kme	Kme	A	V	T	K	A Q K K D
D29	K15me/K16me2	S A P A	P	K	K	G	S	Kme	Kme2	A	V	T	K	A Q K K D
D30	K15me/K16me3	S A P A	P	K	K	G	S	Kme	Kme3	A	V	T	K	A Q K K D
D31	K15me/K16ac	S A P A	P	K	K	G	S	Kac	Kac	A	V	T	K	A Q K K D
D32	K15me2/K16me	S A P A	P	K	K	G	S	Kme2	Kme	A	V	T	K	A Q K K D
D33	K15me2/K16me2	S A P A	P	K	K	G	S	Kme2	Kme2	A	V	T	K	A Q K K D
D34	K15me2/K16me3	S A P A	P	K	K	G	S	Kme2	Kme3	A	V	T	K	A Q K K D
D35	K15me2/K16ac	S A P A	P	K	K	G	S	Kme2	Kac	A	V	T	K	A Q K K D
D36	K15me3/K16me	S A P A	P	K	K	G	S	Kme3	Kme	A	V	T	K	A Q K K D
D37	K15me3/K16me2	S A P A	P	K	K	G	S	Kme3	Kme2	A	V	T	K	A Q K K D
E1	K15me3/K16me3	S A P A	P	K	K	G	S	Kme3	Kme3	A	V	T	K	A Q K K D
E2	K15me3/K16ac	S A P A	P	K	K	G	S	Kac	Kac	A	V	T	K	A Q K K D
E3	K15ac/K16me	S A P A	P	K	K	G	S	Kac	Kme	A	V	T	K	A Q K K D
E4	K15ac/K16me2	S A P A	P	K	K	G	S	Kac	Kme2	A	V	T	K	A Q K K D
E5	K15ac/K16me3	S A P A	P	K	K	G	S	Kac	Kme3	A	V	T	K	A Q K K D
E6	K15ac/K16ac	S A P A	P	K	K	G	S	Kac	Kac	A	V	T	K	A Q K K D
E7	pS14/K15me/K16me	S A P A	P	K	K	G	pS	Kme	Kme	A	V	T	K	A Q K K D
E8	pS14/K15me/K16me2	S A P A	P	K	K	G	pS	Kme	Kme2	A	V	T	K	A Q K K D
E9	pS14/K15me/K16me3	S A P A	P	K	K	G	pS	Kme	Kme3	A	V	T	K	A Q K K D
E10	pS14/K15me/K16ac	S A P A	P	K	K	G	pS	Kme	Kac	A	V	T	K	A Q K K D
E11	pS14/K15me2/K16me	S A P A	P	K	K	G	pS	Kme2	Kme	A	V	T	K	A Q K K D
E12	pS14/K15me2/K16me2	S A P A	P	K	K	G	pS	Kme2	Kme2	A	V	T	K	A Q K K D
E13	pS14/K15me2/K16me3	S A P A	P	K	K	G	pS	Kme2	Kme3	A	V	T	K	A Q K K D
E14	pS14/K15me2/K16ac	S A P A	P	K	K	G	pS	Kme2	Kac	A	V	T	K	A Q K K D
E15	pS14/K15me3/K16me	S A P A	P	K	K	G	pS	Kme3	Kme	A	V	T	K	A Q K K D
E16	pS14/K15me3/K16me2	S A P A	P	K	K	G	pS	Kme3	Kme2	A	V	T	K	A Q K K D
E17	pS14/K15me3/K16me3	S A P A	P	K	K	G	pS	Kme3	Kme3	A	V	T	K	A Q K K D
E18	pS14/K15me3/K16ac	S A P A	P	K	K	G	pS	Kme3	Kac	A	V	T	K	A Q K K D
E19	pS14/K15ac/K16me	S A P A	P	K	K	G	pS	Kac	Kme	A	V	T	K	A Q K K D
E20	pS14/K15ac/K16me2	S A P A	P	K	K	G	pS	Kac	Kme2	A	V	T	K	A Q K K D
E21	pS14/K15ac/K16me3	S A P A	P	K	K	G	pS	Kac	Kme3	A	V	T	K	A Q K K D
E22	pS14/K15ac/K16ac	S A P A	P	K	K	G	pS	Kac	Kac	A	V	T	K	A Q K K D
E23	K15me/K16me/pT19	S A P A	P	K	K	G	S	Kme	Kme	A	V	pT	K	A Q K K D
E24	K15me/K16me2/pT19	S A P A	P	K	K	G	S	Kme	Kme2	A	V	pT	K	A Q K K D
E25	K15me/K16me3/pT19	S A P A	P	K	K	G	S	Kme	Kme3	A	V	pT	K	A Q K K D
E26	K15me2/K16ac/pT19	S A P A	P	K	K	G	S	Kme	Kac	A	V	pT	K	A Q K K D
E27	K15me2/K16me/pT19	S A P A	P	K	K	G	S	Kme2	Kme	A	V	pT	K	A Q K K D
E28	K15me2/K16me2/pT19	S A P A	P	K	K	G	S	Kme2	Kme2	A	V	pT	K	A Q K K D
E29	K15me2/K16me3/pT19	S A P A	P	K	K	G	S	Kme2	Kme3	A	V	pT	K	A Q K K D
E30	K15me2/K16ac/pT19	S A P A	P	K	K	G	S	Kme2	Kac	A	V	pT	K	A Q K K D
E31	K15me3/K16me/pT19	S A P A	P	K	K	G	S	Kme3	Kme	A	V	pT	K	A Q K K D
E32	K15me3/K16me2/pT19	S A P A	P	K	K	G	S	Kme3	Kme2	A	V	pT	K	A Q K K D
E33	K15me3/K16me3/pT19	S A P A	P	K	K	G	S	Kme3	Kme3	A	V	pT	K	A Q K K D
E34	K15me3/K16ac/pT19	S A P A	P	K	K	G	S	Kme3	Kac	A	V	pT	K	A Q K K D
E35	K15ac/K16me/pT19	S A P A	P	K	K	G	S	Kac	Kme	A	V	pT	K	A Q K K D
E36	K15ac/K16me2/pT19	S A P A	P	K	K	G	S	Kac	Kme2	A	V	pT	K	A Q K K D
E37	K15ac/K16me3/pT19	S A P A	P	K	K	G	S	Kac	Kme3	A	V	pT	K	A Q K K D
F1	K15ac/K16ac/pT19	S A P A	P	K	K	G	S	Kac	Kac	A	V	pT	K	A Q K K D
F2	Blank													
F3	CONTROL	K K G S	K	K	A	V	T	K	A	Q	K	K	D	G K K R K
F4	K15me	K K G S	Kme	K	A	V	T	K	A	Q	K	K	D	G K K R K
F5	K15me2	K K G S	Kme2	K	A	V	T	K	A	Q	K	K	D	G K K R K
F6	K15me3	K K G S	Kme3	K	A	V	T	K	A	Q	K	K	D	G K K R K
F7	K15ac	K K G S	Kac	K	A	V	T	K	A	Q	K	K	D	G K K R K
F8	K16me	K K G S	K	Kme	A	V	T	K	A	Q	K	K	D	G K K R K
F9	K16me2	K K G S	K	Kme2	A	V	T	K	A	Q	K	K	D	G K K R K
F10	K16me3	K K G S	K	Kme3	A	V	T	K	A	Q	K	K	D	G K K R K
F11	K16ac	K K G S	K	Kac	A	V	T	K	A	Q	K	K	D	G K K R K
F12	pT19	K K G S	K	K	A	V	pT	K	A	Q	K	K	D	G K K R K
F13	K20me	K K G S	K	K	A	V	T	Kme	A	Q	K	K	D	G K K R K
F14	K20me2	K K G S	K	K	A	V	T	Kme2	A	Q	K	K	D	G K K R K
F15	K20me3	K K G S	K	K	A	V	T	Kme3	A	Q	K	K	D	G K K R K
F16	K20ac	K K G S	K	K	A	V	T	Kac	A	Q	K	K	D	G K K R K
F17	K23me	K K G S	K	K	A	V	T	K	A	Q	K	K	D	G K K R K
F18	K23me2	K K G S	K	K	A	V	T	K	A	Q	K	K	D	G K K R K
F19	K23me3	K K G S	K	K	A	V	T	K	A	Q	K	K	D	G K K R K
F20	K23ac	K K G S	K	K	A	V	T	K	A	Q	K	K	D	G K K R K
F21	pT19/K20me	K K G S	K	K	A	V	pT	Kme	A	Q	K	K	D	G K K R K
F22	pT19/K20me2	K K G S	K	K	A	V	pT	Kme2	A	Q	K	K	D	G K K R K
F23	pT19/K20me3	K K G S	K	K	A	V	pT	Kme3	A	Q	K	K	D	G K K R K
F24	pT19/K20ac	K K G S	K	K	A	V	pT	Kac	A	Q	K	K	D	G K K R K
F25	pT19/K23me	K K G S	K	K	A	V	pT	K	A	Q	K	K	D	G K K R K
F26	pT19/K23me2	K K G S	K	K	A	V	pT	K	A	Q	K	K	D	G K K R K
F27	pT19/K23me3	K K G S	K	K	A	V	pT	K	A	Q	K	K	D	G K K R K
F28	pT19/K23ac	K K G S	K	K	A	V	pT	K	A	Q	K	K	D	G K K R K
F29	K20me/K23me	K K G S	K	K	A	V	T	Kme	A	Q	K	K	D	G K K R K
F30	K20me2/K23me2	K K G S	K	K	A	V	T	Kme	A	Q	K	K	D	G K K R K
F31	K20me/K23me3	K K G S	K	K	A	V	T	Kme	A	Q	K	K	D	G K K R K
F32	K20me/K23ac	K K G S	K	K	A	V	T	Kme	A	Q	K	K	D	G K K R K
F33	K20me2/K23me	K K G S	K	K	A	V	T	Kme2	A	Q	K	K	D	G K K R K
F34	K20me2/K23me2	K K G S	K	K	A	V	T	Kme2	A	Q	K	K	D	G K K R K
F35	K20me2/K23me3	K K G S	K	K	A	V	T	Kme2	A	Q	K	K	D	G K K R K
F36	K20me2/K23ac	K K G S	K	K	A	V	T	Kme2	A	Q	K	K	D	G

G6	K20ac/K23me3	K K G S	K K A V T	T	Kac	A Q	Kme3	K D	G K K R K
G7	K20ac/K23ac	K K G S	K K A V T	T	Kac	A Q	Kac	K D	G K K R K
G8	pT19/K20me/K23me	K K G S	K K A V pT	Kme	A Q	Kme	K D	G K K R K	
G9	pT19/K20me/K23me2	K K G S	K K A V pT	Kme	A Q	Kme2	K D	G K K R K	
G10	pT19/K20me/K23me3	K K G S	K K A V pT	Kme	A Q	Kme3	K D	G K K R K	
G11	pT19/K20me/K23ac	K K G S	K K A V pT	Kme	A Q	Kac	K D	G K K R K	
G12	pT19/K20me2/K23me	K K G S	K K A V pT	Kme2	A Q	Kme	K D	G K K R K	
G13	pT19/K20me2/K23me2	K K G S	K K A V pT	Kme2	A Q	Kme2	K D	G K K R K	
G14	pT19/K20me2/K23me3	K K G S	K K A V pT	Kme2	A Q	Kme3	K D	G K K R K	
G15	pT19/K20me2/K23ac	K K G S	K K A V pT	Kme2	A Q	Kac	K D	G K K R K	
G16	pT19/K20me3/K23me	K K G S	K K A V pT	Kme3	A Q	Kme	K D	G K K R K	
G17	pT19/K20me3/K23me2	K K G S	K K A V pT	Kme3	A Q	Kme2	K D	G K K R K	
G18	pT19/K20me3/K23me3	K K G S	K K A V pT	Kme3	A Q	Kme3	K D	G K K R K	
G19	pT19/K20me3/K23ac	K K G S	K K A V pT	Kme3	A Q	Kac	K D	G K K R K	
G20	pT19/K20ac/K23me	K K G S	K K A V pT	Kac	A Q	Kme	K D	G K K R K	
G21	pT19/K20ac/K23me2	K K G S	K K A V pT	Kac	A Q	Kme2	K D	G K K R K	
G22	pT19/K20ac/K23me3	K K G S	K K A V pT	Kac	A Q	Kme3	K D	G K K R K	
G23	pT19/K20ac/K23ac	K K G S	K K A V pT	Kac	A Q	Kac	K D	G K K R K	
G24	K20me/K24me	K K G S	K K A V T	Kme	A Q	K	Kme	D G K K R K	
G25	K20me/K24me2	K K G S	K K A V T	Kme	A Q	K	Kme2	D G K K R K	
G26	K20me/K24me3	K K G S	K K A V T	Kme	A Q	K	Kme3	D G K K R K	
G27	K20me/K24ac	K K G S	K K A V T	Kme	A Q	K	Kac	D G K K R K	
G28	K20me2/K24me	K K G S	K K A V T	Kme2	A Q	K	Kme	D G K K R K	
G29	K20me2/K24me2	K K G S	K K A V T	Kme2	A Q	K	Kme2	D G K K R K	
G30	K20me2/K24me3	K K G S	K K A V T	Kme2	A Q	K	Kme3	D G K K R K	
G31	K20me2/K24ac	K K G S	K K A V T	Kme2	A Q	K	Kac	D G K K R K	
G32	K20me3/K24me	K K G S	K K A V T	Kme3	A Q	K	Kme	D G K K R K	
G33	K20me3/K24me2	K K G S	K K A V T	Kme3	A Q	K	Kme2	D G K K R K	
G34	K20me3/K24me3	K K G S	K K A V T	Kme3	A Q	K	Kme3	D G K K R K	
G35	K20me3/K24ac	K K G S	K K A V T	Kme3	A Q	K	Kac	D G K K R K	
G36	K20ac/K24me	K K G S	K K A V T	Kac	A Q	K	Kme	D G K K R K	
G37	K20ac/K24me2	K K G S	K K A V T	Kac	A Q	K	Kme2	D G K K R K	
H1	K20ac/K24me3	K K G S	K K A V T	Kac	A Q	K	Kme3	D G K K R K	
H2	K20ac/K24ac	K K G S	K K A V T	Kac	A Q	K	Kac	D G K K R K	
H3	pT19/K20me/K24me	K K G S	K K A V pT	Kme	A Q	K	Kme	D G K K R K	
H4	pT19/K20me/K24me2	K K G S	K K A V pT	Kme	A Q	K	Kme2	D G K K R K	
H5	pT19/K20me/K24me3	K K G S	K K A V pT	Kme	A Q	K	Kme3	D G K K R K	
H6	pT19/K20me/K24ac	K K G S	K K A V pT	Kme	A Q	K	Kac	D G K K R K	
H7	pT19/K20me2/K24me	K K G S	K K A V pT	Kme2	A Q	K	Kme	D G K K R K	
H8	pT19/K20me2/K24me2	K K G S	K K A V pT	Kme2	A Q	K	Kme2	D G K K R K	
H9	pT19/K20me2/K24me3	K K G S	K K A V pT	Kme2	A Q	K	Kme3	D G K K R K	
H10	pT19/K20me2/K24ac	K K G S	K K A V pT	Kme2	A Q	K	Kac	D G K K R K	
H11	pT19/K20me3/K24me	K K G S	K K A V pT	Kme3	A Q	K	Kme	D G K K R K	
H12	pT19/K20me3/K24me2	K K G S	K K A V pT	Kme3	A Q	K	Kme2	D G K K R K	
H13	pT19/K20me3/K24me3	K K G S	K K A V pT	Kme3	A Q	K	Kme3	D G K K R K	
H14	pT19/K20me3/K24ac	K K G S	K K A V pT	Kme3	A Q	K	Kac	D G K K R K	
H15	pT19/K20ac/K24me	K K G S	K K A V pT	Kac	A Q	K	Kme	D G K K R K	
H16	pT19/K20ac/K24me2	K K G S	K K A V pT	Kac	A Q	K	Kme2	D G K K R K	
H17	pT19/K20ac/K24me3	K K G S	K K A V pT	Kac	A Q	K	Kme3	D G K K R K	
H18	pT19/K20ac/K24ac	K K G S	K K A V pT	Kac	A Q	K	Kac	D G K K R K	
H19									
H20	CONTROL	K A V T	K A Q	K K D G	K K R	K R	K R S R K E		
H21	K23me	K A V T	K A Q	Kme	K D G	K K	K R S R K E		
H22	K23me2	K A V T	K A Q	Kme2	K D G	K K	K R S R K E		
H23	K23me3	K A V T	K A Q	Kme3	K D G	K K	K R S R K E		
H24	K23ac	K A V T	K A Q	Kac	K D G	K K	K R S R K E		
H25	K24me	K A V T	K A Q	Kme	D G	K K	K R S R K E		
H26	K24me2	K A V T	K A Q	Kme2	D G	K K	K R S R K E		
H27	K24me	K A V T	K A Q	Kme3	D G	K K	K R S R K E		
H28	K24ac	K A V T	K A Q	Kac	D G	K K	K R S R K E		
H29	K27me	K A V T	K A Q	K	D G	Kme	K R S R K E		
H30	K27me2	K A V T	K A Q	K	D G	Kme2	K R S R K E		
H31	K27me3	K A V T	K A Q	K	D G	Kme3	K R S R K E		
H32	K27ac	K A V T	K A Q	K	D G	Kac	K R S R K E		
H33	K28me	K A V T	K A Q	K	D G	K	Kme	R S R K E	
H34	K28me2	K A V T	K A Q	K	D G	K	Kme2	R S R K E	
H35	K28me3	K A V T	K A Q	K	D G	K	Kme3	R S R K E	
H36	K28ac	K A V T	K A Q	K	D G	K	Kac	R S R K E	
H37	K23me/K24me	K A V T	K A Q	Kme	Kme	D G	K R S R K E		
I1	K23me/K24me2	K A V T	K A Q	Kme	Kme2	D G	K R S R K E		
I2	K23me/K24me3	K A V T	K A Q	Kme	Kme3	D G	K R S R K E		
I3	K23me/K24ac	K A V T	K A Q	Kme	Kac	D G	K R S R K E		
I4	K23me2/K24me	K A V T	K A Q	Kme2	Kme	D G	K R S R K E		
I5	K23me2/K24me2	K A V T	K A Q	Kme2	Kme2	D G	K R S R K E		
I6	K23me2/K24me3	K A V T	K A Q	Kme2	Kme3	D G	K R S R K E		
I7	K23me2/K24ac	K A V T	K A Q	Kme2	Kac	D G	K R S R K E		
I8	K23me3/K24me	K A V T	K A Q	Kme3	Kme	D G	K R S R K E		
I9	K23me3/K24me2	K A V T	K A Q	Kme3	Kme2	D G	K R S R K E		
I10	K23me3/K24me3	K A V T	K A Q	Kme3	Kme3	D G	K R S R K E		
I11	K23me3/K24ac	K A V T	K A Q	Kme3	Kac	D G	K R S R K E		
I12	K23ac/K24me	K A V T	K A Q	Kac	Kme	D G	K R S R K E		
I13	K23ac/K24me2	K A V T	K A Q	Kac	Kme2	D G	K R S R K E		
I14	K23ac/K24me3	K A V T	K A Q	Kac	Kme3	D G	K R S R K E		
I15	K23ac/K24ac	K A V T	K A Q	Kac	Kac	D G	K R S R K E		
I16	K23me/K27me	K A V T	K A Q	Kme	K	D G	Kme	K R S R K E	
I17	K23me/K27me2	K A V T	K A Q	Kme	K	D G	Kme2	K R S R K E	
I18	K23me/K27me3	K A V T	K A Q	Kme	K	D G	Kme3	K R S R K E	
I19	K23me/K27ac	K A V T	K A Q	Kme	K	D G	Kac	K R S R K E	
I20	K23me2/K27me	K A V T	K A Q	Kme2	K	D G	Gme	K R S R K E	
I21	K23me2/K27me2	K A V T	K A Q	Kme2	K	D G	Kme2	K R S R K E	
I22	K23me2/K27me3	K A V T	K A Q	Kme2	K	D G	Kme3	K R S R K E	
I23	K23me2/K27ac	K A V T	K A Q	Kme2	K	D G	Kac	K R S R K E	
I24	K23me3/K27me	K A V T	K A Q	Kme3	K	D G	Kme	K R S R K E	
I25	K23me3/K27me2	K A V T	K A Q	Kme3	K	D G	Kme2	K R S R K E	
I26	K23me3/K27me3	K A V T	K A Q	Kme3	K	D G	Kme3	K R S R K E	
I27	K23me3/K27ac	K A V T	K A Q	Kme3	K	D G	Kac	K R S R K E	
I28	K23ac/K27me	K A V T	K A Q	Kac	K	D G	Kme	K R S R K E	
I29	K23ac/K27me2	K A V T	K A Q	Kac	K	D G	Kme2	K R S R K E	
I30	K23ac/K27me3	K A V T	K A Q	Kac	K	D G	Kme3	K R S R K E	
I31	K23ac/K27a	K A V T	K A Q	Kac	K	D G	Kac	K R S R K E	
I32	K23me/K28me	K A V T	K A Q	Kme	K	D G	K	Kme	R S R K E
I33	K23me/K28me2	K A V T	K A Q	Kme	K	D G	K	Kme2	R S R K E
I34	K23me/K28me3	K A V T	K A Q	Kme	K	D G	K	Kme3	R S R K E
I35	K23me/K28ac	K A V T	K A Q	Kme	K	D G	K	Kac	R S R K E
I36	K23me2/K28me	K A V T	K A Q	Kme2	K	D G	K	Kme	R S R K E
I37	K23me2/K28me2	K A V T	K A Q	Kme2	K	D G	K	Kme2	R S R K E
J1	K23me2/K28me3	K A V T	K A Q	Kme2	K	D G	K	Kme3	R S R K E
J2	K23me2/K28ac	K A V T	K A Q	Kme2	K	D G	K	Kac	R S R K E
J3	K23me3/K28me	K A V T	K A Q	Kme3	K	D G	K	Kme	R S R K E
J4	K23me3/K28me2	K A V T	K A Q	Kme3	K	D G	K	Kme2	R S R K E
J5	K23me3/K28me3	K A V T	K A Q	Kme3	K	D G	K	Kme3	R S R K E
J6	K23me3/K28ac	K A V T	K A Q	Kme3	K	D G	K	Kac	R S R K E
J7	K23ac/K28me	K A V T	K A Q	Kac	K	D G	K	Kme	R S R K E
J8	K23ac/K28me2	K A V T	K A Q	Kac	K	D G	K	Kme2	R S R K E
J9	K23ac/K28me3	K A V T	K A Q	Kac	K	D G	K	Kme3	R S R K E

J10	K23ac/K28ac	K A V T	K A Q Kac K	D G K Kac	R K S R K E
J11	K23ac/K24ac/K27ac	K A V T	K A Q Kac Kac	D G K Kac	R K S R K E
J12	K23ac/K27ac/K28ac	K A V T	K A Q Kac K	D G K Kac	R K S R K E
J13	K23ac/K24ac/K28ac	K A V T	K A Q Kac Kac	D G K Kac	R K S R K E
J14	K23ac/K24ac/K27ac/K28ac	K A V T	K A Q Kac Kac	D G K Kac	R K S R K E
J15	CONTROL	A Q K K K	D G K K R K R	R S R K E	E S Y S V Y
J17	K27me	A Q K K K	D G Kme K R K R	S R K E	E S Y S V Y
J18	K27me2	A Q K K K	D G Kme2 K R K R	S R K E	E S Y S V Y
J19	K27me3	A Q K K K	D G Kme3 K R K R	S R K E	E S Y S V Y
J20	K27ac	A Q K K K	D G Kac K R K R	S R K E	E S Y S V Y
J21	K28me	A Q K K K	D G K Kme R K R	S S R K E	E S Y S V Y
J22	K28me2	A Q K K K	D G K Kme2 R K R	S S R K E	E S Y S V Y
J23	K28me3	A Q K K K	D G K Kme3 R K R	S S R K E	E S Y S V Y
J24	K28ac	A Q K K K	D G Kac K R K R	S S R K E	E S Y S V Y
J25	K30me	A Q K K K	D G K K K R Kme R	S S R K E	E S Y S V Y
J26	K30me2	A Q K K K	D G K K K R Kme2 R	S S R K E	E S Y S V Y
J27	K30me3	A Q K K K	D G K K K R Kme3 R	S S R K E	E S Y S V Y
J28	K30ac	A Q K K K	D G K K R Kac R	S S R K E	E S Y S V Y
J29	pS32	A Q K K K	D G K K R pS R	S S R K E	E S Y S V Y
J30	K27me/K28me	A Q K K K	D G Kme Kme R K R	S S R K E	E S Y S V Y
J31	K27me/K28me2	A Q K K K	D G Kme Kme2 R K R	S S R K E	E S Y S V Y
J32	K27me/K28me3	A Q K K K	D G Kme Kme3 R K R	S S R K E	E S Y S V Y
J33	K27me/K28ac	A Q K K K	D G Kac K R K R	S S R K E	E S Y S V Y
J34	K27me2/K28me	A Q K K K	D G Kme2 Kme R K R	S S R K E	E S Y S V Y
J35	K27me2/K28me2	A Q K K K	D G Kme2 Kme2 R K R	S S R K E	E S Y S V Y
J36	K27me2/K28me3	A Q K K K	D G Kme2 Kme3 R K R	S S R K E	E S Y S V Y
J37	K27me2/K28ac	A Q K K K	D G Kme2 Kac R K R	S S R K E	E S Y S V Y
K1	K27me3/K28me	A Q K K K	D G Kme3 Kme R K R	S S R K E	E S Y S V Y
K2	K27me3/K28me2	A Q K K K	D G Kme3 Kme2 R K R	S S R K E	E S Y S V Y
K3	K27me3/K28me3	A Q K K K	D G Kme3 Kme3 R K R	S S R K E	E S Y S V Y
K4	K27me3/K28ac	A Q K K K	D G Kme3 Kac R K R	S S R K E	E S Y S V Y
K5	K27ac/K28me	A Q K K K	D G Kac Kme R K R	S S R K E	E S Y S V Y
K6	K27ac/K28me2	A Q K K K	D G Kac Kme2 R K R	S S R K E	E S Y S V Y
K7	K27ac/K28me3	A Q K K K	D G Kac Kme3 R K R	S S R K E	E S Y S V Y
K8	K27ac/K28ac	A Q K K K	D G Kac Kac R K R	S S R K E	E S Y S V Y
K9	K27me/K30me	A Q K K K	D G Kme K R Kme R	S S R K E	E S Y S V Y
K10	K27me/K30me2	A Q K K K	D G Kme K R Kme2 R	S S R K E	E S Y S V Y
K11	K27me/K30me3	A Q K K K	D G Kme K R Kme3 R	S S R K E	E S Y S V Y
K12	K27me/K30ac	A Q K K K	D G Kme K R Kac R	S S R K E	E S Y S V Y
K13	K27me2/K30me	A Q K K K	D G Kme2 K R Kme R	S S R K E	E S Y S V Y
K14	K27me2/K30me2	A Q K K K	D G Kme2 K R Kme2 R	S S R K E	E S Y S V Y
K15	K27me2/K30me3	A Q K K K	D G Kme2 K R Kme3 R	S S R K E	E S Y S V Y
K16	K27me2/K30ac	A Q K K K	D G Kme2 K R Kac R	S S R K E	E S Y S V Y
K17	K27me3/K30me	A Q K K K	D G Kme3 K R Kme R	S S R K E	E S Y S V Y
K18	K27me3/K30me2	A Q K K K	D G Kme3 K R Kme2 R	S S R K E	E S Y S V Y
K19	K27me3/K30me3	A Q K K K	D G Kme3 K R Kme3 R	S S R K E	E S Y S V Y
K20	K27me3/K30ac	A Q K K K	D G Kme3 K R Kac R	S S R K E	E S Y S V Y
K21	K27ac/K30me	A Q K K K	D G Kac K R Kme R	S S R K E	E S Y S V Y
K22	K27ac/K30me2	A Q K K K	D G Kac K R Kme2 R	S S R K E	E S Y S V Y
K23	K27ac/K30me3	A Q K K K	D G Kac K R Kme3 R	S S R K E	E S Y S V Y
K24	K27ac/K30ac	A Q K K K	D G Kac K R Kac R	S S R K E	E S Y S V Y
K25	K28me/K30me	A Q K K K	D G K Kme R Kme R	S S R K E	E S Y S V Y
K26	K28me/K30me2	A Q K K K	D G K Kme R Kme2 R	S S R K E	E S Y S V Y
K27	K28me/K30me3	A Q K K K	D G K Kme R Kme3 R	S S R K E	E S Y S V Y
K28	K28me/K30ac	A Q K K K	D G K Kme R Kac R	S S R K E	E S Y S V Y
K29	K28me2/K30me	A Q K K K	D G K Kme2 R Kme R	S S R K E	E S Y S V Y
K30	K28me2/K30me2	A Q K K K	D G K Kme2 R Kme2 R	S S R K E	E S Y S V Y
K31	K28me2/K30me3	A Q K K K	D G K Kme2 R Kme3 R	S S R K E	E S Y S V Y
K32	K28me2/K30ac	A Q K K K	D G K Kme2 R Kac R	S S R K E	E S Y S V Y
K33	K28me3/K30me	A Q K K K	D G K Kme3 R Kme R	S S R K E	E S Y S V Y
K34	K28me3/K30me2	A Q K K K	D G K Kme3 R Kme2 R	S S R K E	E S Y S V Y
K35	K28me3/K30me3	A Q K K K	D G K Kme3 R Kme3 R	S S R K E	E S Y S V Y
K36	K28me3/K30ac	A Q K K K	D G K Kme3 R Kac R	S S R K E	E S Y S V Y
K37	K28ac/K30me	A Q K K K	D G K K Kac R Kme R	S S R K E	E S Y S V Y
L1	K28ac/K30me2	A Q K K K	D G K K Kac R Kme2 R	S S R K E	E S Y S V Y
L2	K28ac/K30me3	A Q K K K	D G K K Kac R Kme3 R	S S R K E	E S Y S V Y
L3	K28ac/K30ac	A Q K K K	D G K K Kac R Kac R	S S R K E	E S Y S V Y
L4	K27me/pS32	A Q K K K	D G Kme K R K R	pS R K E	E S Y S V Y
L5	K27me2/pS32	A Q K K K	D G Kme2 K R K R	pS R K E	E S Y S V Y
L6	K27me3/pS32	A Q K K K	D G Kme3 K R K R	pS R K E	E S Y S V Y
L7	K27ac/pS32	A Q K K K	D G Kac K R K R	pS R K E	E S Y S V Y
L8	K28me/pS32	A Q K K K	D G Kme R K R	pS R K E	E S Y S V Y
L9	K28me2/pS32	A Q K K K	D G Kme2 R K R	pS R K E	E S Y S V Y
L10	K28me3/pS32	A Q K K K	D G Kme3 R K R	pS R K E	E S Y S V Y
L11	K28ac/pS32	A Q K K K	D G Kac K R K R	pS R K E	E S Y S V Y
L12	K30me/pS32	A Q K K K	D G K K R Kme R	pS R K E	E S Y S V Y
L13	K30me2/pS32	A Q K K K	D G K K R Kme2 R	pS R K E	E S Y S V Y
L14	K30me3/pS32	A Q K K K	D G K K R Kme3 R	pS R K E	E S Y S V Y
L15	K30ac/pS32	A Q K K K	D G K K R Kac R	pS R K E	E S Y S V Y
L16	K27ac/K30ac	A Q K K K	D G Kac K R Kac R	pS R K E	E S Y S V Y
L17	K27ac/K28ac	A Q K K K	D G Kac Kac K R K R	pS R K E	E S Y S V Y
L18	K27ac/K28ac/K30ac	A Q K K K	D G Kac Kac K R Kac R	pS R K E	E S Y S V Y
L19	K27me/K30me/pS32	A Q K K K	D G Kme K R Kme R	pS R K E	E S Y S V Y
L20	K27me/K30me2/pS32	A Q K K K	D G Kme K R Kme2 R	pS R K E	E S Y S V Y
L21	K27me/K30me3/pS32	A Q K K K	D G Kme K R Kme3 R	pS R K E	E S Y S V Y
L22	K27me/K30ac/pS32	A Q K K K	D G Kme K R Kac R	pS R K E	E S Y S V Y
L23	K27me2/K30me/pS32	A Q K K K	D G Kme2 K R Kme R	pS R K E	E S Y S V Y
L24	K27me2/K30me2/pS32	A Q K K K	D G Kme2 K R Kme2 R	pS R K E	E S Y S V Y
L25	K27me2/K30me3/pS32	A Q K K K	D G Kme2 K R Kme3 R	pS R K E	E S Y S V Y
L26	K27me2/K30ac/pS32	A Q K K K	D G Kme2 K R Kac R	pS R K E	E S Y S V Y
L27	K27me3/K30me/pS32	A Q K K K	D G Kme3 K R Kme R	pS R K E	E S Y S V Y
L28	K27me3/K30me2/pS32	A Q K K K	D G Kme3 K R Kme2 R	pS R K E	E S Y S V Y
L29	K27me3/K30me3/pS32	A Q K K K	D G Kme3 K R Kme3 R	pS R K E	E S Y S V Y
L30	K27me3/K30ac/pS32	A Q K K K	D G Kme3 K R Kac R	pS R K E	E S Y S V Y
L31	K27ac/K30me/pS32	A Q K K K	D G Kac K R Kme R	pS R K E	E S Y S V Y
L32	K27ac/K30me2/pS32	A Q K K K	D G Kac K R Kme2 R	pS R K E	E S Y S V Y
L33	K27ac/K30me3/pS32	A Q K K K	D G Kac K R Kme3 R	pS R K E	E S Y S V Y
L34	K27ac/K30ac/pS32	A Q K K K	D G Kac K R Kac R	pS R K E	E S Y S V Y
L35	K28me/K30me/pS32	A Q K K K	D G Kme R K Kme R	pS R K E	E S Y S V Y
L36	K28me/K30me2/pS32	A Q K K K	D G Kme R K Kme2 R	pS R K E	E S Y S V Y
L37	K28me/K30me3/pS32	A Q K K K	D G Kme R K Kme3 R	pS R K E	E S Y S V Y
M1	K28me/K30ac/pS32	A Q K K K	D G K K R Kme R	Kac pS R K E	E S Y S V Y
M2	K28me2/K30me/pS32	A Q K K K	D G K K R Kme2 R	Kme pS R K E	E S Y S V Y
M3	K28me2/K30me2/pS32	A Q K K K	D G K K R Kme2 R	Kme2 pS R K E	E S Y S V Y
M4	K28me2/K30me3/pS32	A Q K K K	D G K K R Kme3 R	Kme3 pS R K E	E S Y S V Y
M5	K28me2/K30ac/pS32	A Q K K K	D G K K R Kac R	Kac pS R K E	E S Y S V Y
M6	K28me3/K30me/pS32	A Q K K K	D G K K R Kme3 R	Kme pS R K E	E S Y S V Y
M7	K28me3/K30me2/pS32	A Q K K K	D G K K R Kme2 R	Kme2 pS R K E	E S Y S V Y
M8	K28me3/K30me3/pS32	A Q K K K	D G K K R Kme3 R	Kme3 pS R K E	E S Y S V Y
M9	K28me3/K30ac/pS32	A Q K K K	D G K K R Kme3 R	Kac pS R K E	E S Y S V Y
M10	K28ac/K30me/pS32	A Q K K K	D G K K R Kac R	Kme pS R K E	E S Y S V Y
M11	K28ac/K30me2/pS32	A Q K K K	D G K K R Kac R	Kme2 pS R K E	E S Y S V Y
M12	K28ac/K30me3/pS32	A Q K K K	D G K K R Kac R	Kme3 pS R K E	E S Y S V Y
M13	K28ac/K30ac/pS32	A Q K K K	D G K K R Kac R	Kac pS R K E	E S Y S V Y

M14		G	K	K	R	K	R	S	R	K	E	S	Y	S	V	Y	Y	Y	K	V	L	
M15	CONTROL	G	K	K	R	K	R	S	R	K	E	S	Y	S	V	Y	Y	Y	K	V	L	
M16	pS32	G	K	K	R	K	R	pS	R	K	E	S	Y	S	V	Y	Y	Y	K	V	L	
M17	K34me	G	K	K	R	K	R	S	R	Kme	E	S	Y	S	V	Y	Y	Y	K	V	L	
M18	K34me2	G	K	K	R	K	R	S	R	Kme2	E	S	Y	S	V	Y	Y	Y	K	V	L	
M19	K34me3	G	K	K	R	K	R	S	R	Kme3	E	S	Y	S	V	Y	Y	Y	K	V	L	
M20	K34ac	G	K	K	R	K	R	S	R	Kac	E	S	pS	Y	S	V	Y	Y	Y	K	V	L
M21	pS36	G	K	K	R	K	R	S	R	K	E	pS	Y	S	V	Y	Y	Y	K	V	L	
M22	pS38	G	K	K	R	K	R	S	R	K	E	S	Y	pS	V	Y	Y	Y	K	V	L	
M23	pS32/K34me	G	K	K	R	K	R	pS	R	Kme	E	S	Y	S	V	Y	Y	Y	K	V	L	
M24	pS32/K34me2	G	K	K	R	K	R	pS	R	Kme2	E	S	Y	S	V	Y	Y	Y	K	V	L	
M25	pS32/K34me3	G	K	K	R	K	R	pS	R	Kme3	E	S	Y	S	V	Y	Y	Y	K	V	L	
M26	pS32/K34ac	G	K	K	R	K	R	pS	R	Kac	E	S	Y	S	V	Y	Y	Y	K	V	L	
M27	K34me/pS36	G	K	K	R	K	R	S	R	Kme	E	pS	Y	S	V	Y	Y	Y	K	V	L	
M28	K34me2/pS36	G	K	K	R	K	R	S	R	Kme2	E	pS	Y	S	V	Y	Y	Y	K	V	L	
M29	K34me3/pS36	G	K	K	R	K	R	S	R	Kme3	E	pS	Y	S	V	Y	Y	Y	K	V	L	
M30	K34ac/pS36	G	K	K	R	K	R	S	R	Kac	E	pS	Y	S	V	Y	Y	Y	K	V	L	
M31	K34me/pS38	G	K	K	R	K	R	S	R	Kme	E	S	Y	pS	V	Y	Y	Y	K	V	L	
M32	K34me2/pS38	G	K	K	R	K	R	S	R	Kme2	E	S	Y	pS	V	Y	Y	Y	K	V	L	
M33	K34me3/pS38	G	K	K	R	K	R	S	R	Kme3	E	S	Y	pS	V	Y	Y	Y	K	V	L	
M34	K34ac/pS38	G	K	K	R	K	R	S	R	Kac	E	S	Y	pS	V	Y	Y	Y	K	V	L	

Histone	Peptide Length	Array Position	Kac Mark Combinations			Sequence																					
						4						9			14				18								
			A1	HHHHHHHHHH		A2	HHHHHHHHHH		A3	(blank)			T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R
H3.1 (P68431)	1-20	A4	CONTROL			A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L		
			K4me	A	R	T	K	Mke	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4me2	A	R	T	K	Mke2	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4me3	A	R	T	K	Mke3	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4ac	A	R	T	K	Kac	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			pT3	A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L				
			pT3/K4ac	A	R	T	K	Mke	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			pT3/K4me	A	R	T	K	Mke2	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			pT3/K4me2	A	R	T	K	Mke3	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			pT3/K4me3	A	R	T	K	Kac	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			pT6	A	R	T	K	Q	pT	A	R	K	S	T	G	G	K	A	P	R	K	Q	L				
			K4me/pT6	A	R	T	K	Mke	Q	pT	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4me2/pT6	A	R	T	K	Mke2	Q	pT	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4me3/pT6	A	R	T	K	Mke3	Q	pT	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			K4ac/pT6	A	R	T	K	Kac	Q	pT	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			B1	K9me	A	R	T	K	Q	T	A	R	K	Mke	S	T	G	G	K	A	P	R	K	Q	L		
			B2	K9me2	A	R	T	K	Q	T	A	R	K	Mke2	S	T	G	G	K	A	P	R	K	Q	L		
			B3	K9me3	A	R	T	K	Q	T	A	R	K	Mke3	S	T	G	G	K	A	P	R	K	Q	L		
			B4	K9ac	A	R	T	K	Q	T	A	R	K	Kac	S	T	G	G	K	A	P	R	K	Q	L		
			B5	pT6/K9me	A	R	T	K	Q	pT	A	R	K	Mke	S	T	G	G	K	A	P	R	K	Q	L		
			B6	pT6/K9me2	A	R	T	K	Q	pT	A	R	K	Mke2	S	T	G	G	K	A	P	R	K	Q	L		
			B7	pT6/K9me3	A	R	T	K	Q	pT	A	R	K	Mke3	S	T	G	G	K	A	P	R	K	Q	L		
			B8	pT6/K9ac	A	R	T	K	Q	pT	A	R	K	Kac	S	T	G	G	K	A	P	R	K	Q	L		
			B9	pS10	A	R	T	K	Q	T	A	R	K	ps	S	T	G	G	K	A	P	R	K	Q	L		
			B10	K9me/pS10	A	R	T	K	Q	T	A	R	K	Mpe	S	T	G	G	K	A	P	R	K	Q	L		
			B11	K9me2/pS10	A	R	T	K	Q	T	A	R	K	Mpe2	S	T	G	G	K	A	P	R	K	Q	L		
			B12	K9me3/pS10	A	R	T	K	Q	T	A	R	K	Mpe3	S	T	G	G	K	A	P	R	K	Q	L		
			B13	K9ac/pS10	A	R	T	K	Q	T	A	R	K	Kac	S	T	G	G	K	A	P	R	K	Q	L		
			B14	pT11	A	R	T	K	Q	T	A	R	K	S	pT	G	G	K	A	P	R	K	Q	L			
			B15	K9me/pT11	A	R	T	K	Q	T	A	R	K	Mpe	S	pT	G	G	K	A	P	R	K	Q	L		
			B16	K9me2/pT11	A	R	T	K	Q	T	A	R	K	Mpe2	S	pT	G	G	K	A	P	R	K	Q	L		
			B17	K9me3/pT11	A	R	T	K	Q	T	A	R	K	Mpe3	S	pT	G	G	K	A	P	R	K	Q	L		
			B18	K9ac/pT11	A	R	T	K	Q	T	A	R	K	Kac	S	pT	G	G	K	A	P	R	K	Q	L		
			C1	K14me	A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			C2	K14me2	A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			C3	K14me3	A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			C4	K14ac	A	R	T	K	Q	T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L			
			C5	K9me/K14ac	A	R	T	K	Q	T	A	R	K	Mpe	S	T	G	G	K	A	P	R	K	Q	L		
			C6	K9me2/K14ac	A	R	T	K	Q	T	A	R	K	Mpe2	S	T	G	G	K	A	P	R	K	Q	L		
			C7	K9me3/K14ac	A	R	T	K	Q	T	A	R	K	Mpe3	S	T	G	G	K	A	P	R	K	Q	L		
			C8	K9ac/K14ac	A	R	T	K	Q	T	A	R	K	Kac	S	T	G	G	K	A	P	R	K	Q	L		
			C9	pS10/K14ac	A	R	T	K	Q	T	A	R	K	ps	S	T	G	G	K	A	P	R	K	Q	L		
			C10	pT11/K14ac	A	R	T	K	Q	T	A	R	K	S	pT	G	G	K	A	P	R	K	Q	L			
			C11	K9ac/pS10/K14ac	A	R	T	K	Q	T	A	R	K	Kac	ps	T	G	G	K	A	P	R	K	Q	L		
			C12	K9ac/pT11/K14ac	A	R	T	K	Q	T	A	R	K	Kac	S	pT	G	G	K	A	P	R	K	Q	L		
H3.1 (P68431)	6-25	C13	CONTROL			T	A	R	K	S	T	G	G	K	A	P	R	K	Q	L	A	T	K	A	A		
			K14me	T	A	R	K	S	T	G	G	K	Mke	A	P	R	K	Q	L	A	T	K	A	A			
			K14me2	T	A	R	K	S	T	G	G	K	Mke2	A	P	R	K	Q	L	A	T	K	A	A			
			K14me3	T	A	R	K	S	T	G	G	K	Mke3	A	P	R	K	Q	L	A	T	K	A	A			
			K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A			
			K9me/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A			
			K9me2/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A			
			K9me3/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A			
			D1	K9ac/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D2	K9me2/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D3	K9ac/K14ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D4	pS10/K14ac	T	A	R	K	S	pS	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A	
			D5	pT11/K14ac	T	A	R	K	S	pT	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D6	K9ac/pS10/K14ac	T	A	R	K	S	pS	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A	
			D7	K9ac/pT11/K14ac	T	A	R	K	S	pT	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D8	K18me	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D9	K18me2	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D10	K18me3	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D11	K18ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D12	K14ac/K18me	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D13	K14ac/K18me2	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D14	K14ac/K18me3	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D15	K14ac/K18ac	T	A	R	K	S	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			D16	pS10/K14ac/K18me	T	A	R	K	S	pS	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A	
			D17	pS10/K14ac/K18me2	T	A	R	K	S	pS	T	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A	
			D18	pS10/K14ac/K18me3	T	A	R	K	S	pT	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			E1	pS10/K14ac/K18ac	T	A	R	K	S	pT	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			E2	pT11/K14ac/K18me2	T	A	R	K	S	pT	G	G	K	Kac	A	P	R	K	Q	L	A	T	K	A	A		
			E3	pT11/K14ac/K18me3	T	A	R	K	S	pT	G	G	K	Kac	A	P	R</										

F7	pT22/K23me2	T	G	G	K	A	P	R	K	Q	L	A	pT	Kme2	A	A	R	K	S	A	P	
F8	pT22/K23me3	T	G	G	K	A	P	R	K	Q	L	A	pT	Kme3	A	A	R	K	S	A	P	
F9	pT22/K23ac	T	G	G	K	A	P	R	K	Q	L	A	pT	Kac	A	A	R	K	S	A	P	
F10	K18me/K23me	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme	A	A	R	K	S	A	P	
F11	K18me2/K23me	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme	A	A	R	K	S	A	P	
F12	K18me3/K23me	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme	A	A	R	K	S	A	P	
F13	K18ac/K23me	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme	A	A	R	K	S	A	P	
F14	K18me/K23me2	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
F15	K18me2/K23me2	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
F16	K18me3/K23me2	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
F17	K18ac/K23me2	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
F18	K18me/K23me3	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
G1	K18me2/K23me3	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
G2	K18me3/K23me3	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
G3	K18ac/K23me3	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
G4	K18me/K23ac	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kac	A	A	R	K	S	A	P	
G5	K18me2/K23ac	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kac	A	A	R	K	S	A	P	
G6	K18me3/K23ac	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kac	A	A	R	K	S	A	P	
G7	K18ac/K23ac	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kac	A	A	R	K	S	A	P	
G8	K18me/pT22/K23me	T	G	G	K	A	P	R	Kme	Q	L	A	T	pT	Kme	A	A	R	K	S	A	P
G9	K18me2/pT22/K23me	T	G	G	K	A	P	R	Kme2	Q	L	A	T	pT	Kme	A	A	R	K	S	A	P
G10	K18me3/pT22/K23me	T	G	G	K	A	P	R	Kme3	Q	L	A	T	pT	Kme	A	A	R	K	S	A	P
G11	K18ac/pT22/K23me	T	G	G	K	A	P	R	Kac	Q	L	A	T	pT	Kme	A	A	R	K	S	A	P
G12	K18me/pT22/K23me2	T	G	G	K	A	P	R	Kme	Q	L	A	T	pT	Kme2	A	A	R	K	S	A	P
G13	K18me2/pT22/K23me2	T	G	G	K	A	P	R	Kme2	Q	L	A	T	pT	Kme2	A	A	R	K	S	A	P
G14	K18me3/pT22/K23me2	T	G	G	K	A	P	R	Kme3	Q	L	A	T	pT	Kme2	A	A	R	K	S	A	P
G15	K18ac/pT22/K23me2	T	G	G	K	A	P	R	Kac	Q	L	A	T	pT	Kme2	A	A	R	K	S	A	P
G16	K18me/pT22/K23me3	T	G	G	K	A	P	R	Kme	Q	L	A	T	pT	Kme3	A	A	R	K	S	A	P
G17	K18me2/pT22/K23me3	T	G	G	K	A	P	R	Kme2	Q	L	A	T	pT	Kme3	A	A	R	K	S	A	P
G18	K18me3/pT22/K23me3	T	G	G	K	A	P	R	Kme3	Q	L	A	T	pT	Kme3	A	A	R	K	S	A	P
H1	K18ac/pT22/K23me3	T	G	G	K	A	P	R	Kac	Q	L	A	T	pT	Kme3	A	A	R	K	S	A	P
H2	K18me/pT22/K23ac	T	G	G	K	A	P	R	Kme	Q	L	A	T	pT	Kac	A	A	R	K	S	A	P
H3	K18me2/pT22/K23ac	T	G	G	K	A	P	R	Kme2	Q	L	A	T	pT	Kac	A	A	R	K	S	A	P
H4	K18me3/pT22/K23ac	T	G	G	K	A	P	R	Kme3	Q	L	A	T	pT	Kac	A	A	R	K	S	A	P
H5	K18ac/pT22/K23ac	T	G	G	K	A	P	R	Kac	Q	L	A	T	pT	Kac	A	A	R	K	S	A	P
H6	K14ac/pT22/K18me	T	G	G	K	A	P	R	Kme	Q	L	A	T	pT	K	A	A	R	K	S	A	P
H7	K14ac/pT22/K18me2	T	G	G	K	A	P	R	Kme2	Q	L	A	T	pT	K	A	A	R	K	S	A	P
H8	K14ac/pT22/K18me3	T	G	G	K	A	P	R	Kme3	Q	L	A	T	pT	K	A	A	R	K	S	A	P
H9	K14ac/pT22/K18ac	T	G	G	K	A	P	R	Kac	Q	L	A	T	pT	K	A	A	R	K	S	A	P
H10	K14ac/K18me/K23me	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme	A	A	R	K	S	A	P	
H11	K14ac/K18me2/K23me	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme	A	A	R	K	S	A	P	
H12	K14ac/K18me3/K23me	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme	A	A	R	K	S	A	P	
H13	K14ac/K18ac/K23me	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme	A	A	R	K	S	A	P	
H14	K14ac/K18me/K23me2	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
H15	K14ac/K18me2/K23me2	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
H16	K14ac/K18me3/K23me2	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
H17	K14ac/K18ac/K23me2	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme2	A	A	R	K	S	A	P	
H18	K14ac/K18me3/K23me3	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
H1	K14ac/K18me2/K23me3	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
H2	K14ac/K18me3/K23me3	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
H3	K14ac/K18ac/K23me3	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kme3	A	A	R	K	S	A	P	
H4	K14ac/K18me/K23ac	T	G	G	K	A	P	R	Kme	Q	L	A	T	Kac	A	A	R	K	S	A	P	
H5	K14ac/K18me2/K23ac	T	G	G	K	A	P	R	Kme2	Q	L	A	T	Kac	A	A	R	K	S	A	P	
H6	K14ac/K18me3/K23ac	T	G	G	K	A	P	R	Kme3	Q	L	A	T	Kac	A	A	R	K	S	A	P	
H7	K14ac/K18ac/K23ac	T	G	G	K	A	P	R	Kac	Q	L	A	T	Kac	A	A	R	K	S	A	P	

H3.1 (P68431)	16-35	I8	CONTROL	18			22		23		27		28		32							
				P	R	K	Q	L	A	T	K	A	A	R	K	S	A	P	T	G	V	
		I9	pT22	P	R	K	Q	L	A	PT	K	A	A	R	K	S	A	P	T	G	G	
		I10	K23me	P	R	K	Q	L	A	T	Kme	A	A	R	K	S	A	P	A	T	G	G
		I11	K23me2	P	R	K	Q	L	A	T	Kme2	A	A	R	K	S	A	P	A	T	G	G
		I12	K23me3	P	R	K	Q	L	A	T	Kme3	A	A	R	K	S	A	P	A	T	G	G
		I13	K23ac	P	R	K	Q	L	A	T	Kac	A	A	R	K	S	A	P	A	T	G	G
		I14	pT22/K23me	P	R	K	Q	L	A	PT	Kme	A	A	R	K	S	A	P	A	T	G	G
		I15	pT22/K23me2	P	R	K	Q	L	A	PT	Kme2	A	A	R	K	S	A	P	A	T	G	G
		I16	pT22/K23me3	P	R	K	Q	L	A	PT	Kme3	A	A	R	K	S	A	P	A	T	G	G
		I17	pT22/K23ac	P	R	K	Q	L	A	PT	Kac	A	A	R	K	S	A	P	A	T	G	G
		I18	K27me	P	R	K	Q	L	A	T	K	A	A	R	Kme	S	A	P	A	T	G	G
		J1	K27me2	P	R	K	Q	L	A	T	K	A	A	R	Kme2	S	A	P	A	T	G	G
		J2	K27me3	P	R	K	Q	L	A	T	K	A	A	R	Kme3	S	A	P	A	T	G	G
		J3	K27ac	P	R	K	Q	L	A	T	K	A	A	R	Kac	S	A	P	A	T	G	G
		J4	K23me/K27me	P	R	K	Q	L	A	T	Kme	A	A	R	Kme	S	A	P	A	T	G	G
		J5	K23me2/K27me	P	R	K	Q	L	A	T	Kme2	A	A	R	Kme	S	A	P	A	T	G	G
		J6	K23me3/K27me	P	R	K	Q	L	A	T	Kme3	A	A	R	Kme	S	A	P	A	T	G	G
		J7	K23ac/K27me	P	R	K	Q	L	A	T	Kac	A	A	R	Kme	S	A	P	A	T	G	G
		J8	K23me/K27me2	P	R	K	Q	L	A	T	Kme	A	A	R	Kme2	S	A	P	A	T	G	G
		J9	K23me2/K27me2	P	R	K	Q	L	A	T	Kme2	A	A	R	Kme2	S	A	P	A	T	G	G
		J10	K23me3/K27me2	P	R	K	Q	L	A	T	Kme3	A	A	R	Kme2	S	A	P	A	T	G	G
		J11	K23ac/K27me2	P	R	K	Q	L	A	T	Kac	A	A	R	Kme2	S	A	P	A	T	G	G
		J12	K23me/K27me3	P	R	K	Q	L	A	T	Kme	A	A	R	Kme3	S	A	P	A	T	G	G
		J13	K23me2/K27me3	P	R	K	Q	L	A	T	Kme2	A	A	R	Kme3	S	A	P	A	T	G	G
		J14	K23me3/K27me3	P	R	K	Q	L	A	T	Kme3	A	A	R	Kme3	S	A	P	A	T	G	G
		J15	K23ac/K27me3	P	R	K	Q	L	A	T	Kac	A	A	R	Kme3	S	A	P	A	T	G	G
		J16	K23me/K27ac	P	R	K	Q	L	A	T	Kme	A	A	R	Kac	S	A	P	A	T	G	G
		J17	K23me2/K27ac	P	R	K	Q	L	A	T	Kme2	A	A	R	Kac	S	A	P	A	T	G	G
		J18	K23me3/K27ac	P	R	K	Q	L	A	T	Kme3	A	A	R	Kac	S	A	P	A	T	G	G
		K1	K23ac/K27ac	P	R	K	Q	L	A	T	Kac	A	A	R	Kac	S	A	P	A	T	G	G
		K2	pT22/K23me/K27me	P	R	K	Q	L	A	PT	Kme	A	A	R	Kme	S	A	P	A	T	G	G
		K3	pT22/K23me2/K27me	P	R	K	Q	L	A	PT	Kme2	A	A	R	Kme	S	A	P	A	T	G	G
		K4	pT22/K23me3/K27me	P	R	K	Q	L	A	PT	Kme3	A	A	R	Kme	S	A	P	A	T	G	G
		K5	pT22/K23ac/K27me	P	R	K	Q	L	A	PT	Kac	A	A	R	Kme	S	A	P	A	T	G	G
		K6	pT22/K23me/K27me2	P	R	K	Q	L	A	PT	Kme	A	A	R	Kme2	S	A	P	A	T	G	G
		K7	pT22/K23me2/K27me2	P	R	K	Q	L	A	PT	Kme2	A	A	R	Kme2	S	A	P	A	T	G	G
		K8	pT22/K23me3/K27me2	P	R	K	Q	L	A	PT	Kme3	A	A	R	Kme2	S	A	P	A	T	G	G
		K9	pT22/K23ac/K27me2	P	R	K	Q	L	A	PT	Kac	A	A	R	Kme2	S	A	P	A	T	G	G
		K10	pT22/K23me/K27me3	P	R	K	Q	L	A	PT	Kme	A	A	R	Kme3	S	A	P	A	T	G	G
		K11	pT22/K23me2/K27me3	P	R	K	Q	L	A	PT	Kme2	A	A	R	Kme3	S	A	P	A	T	G	G
		K12	pT22/K23me3/K27me3	P	R	K	Q	L	A	PT	Kme3	A	A	R	Kme3	S	A	P	A	T	G	G
		K13	pT22/K23ac/K27me3	P	R	K	Q	L	A	PT	Kac	A	A	R	Kme3	S	A	P	A	T	G	G
		K14	pT22/K23me/K27ac	P	R	K	Q	L	A	PT	Kme	A	A	R	Kac	S	A	P	A	T	G	G
		K15	pT22/K23me2/K27ac	P	R	K	Q	L	A	PT	Kme2	A	A	R	Kac	S	A	P	A	T	G	G
		K16	pT22/K23me3/K27ac	P	R	K	Q	L	A	PT	Kme3	A	A	R	Kac	S	A	P	A	T	G	G
		K17	pT22/K23ac/K27ac	P	R	K	Q	L	A	PT	Kac	A	A	R	Kac	S	A	P	A	T	G	G

	K18	pS28	P R K Q L A T K A A R K pS	A P A T G G V
	L1	K27me/pS28	P R K Q L A T K A A R Kme pS	A P A T G G V
	L2	K27me2/pS28	P R K Q L A T K A A R Kme2 pS	A P A T G G V
	L3	K27me3/pS28	P R K Q L A T K A A R Kme3 pS	A P A T G G V
	L4	K27ac/pS28	P R K Q L A T K A A R Kac pS	A P A T G G V
	L5	K23me/K27me/pS28	P R K Q L A T Kme A A R Kme pS	A P A T G G V
	L6	K23me2/K27me/pS28	P R K Q L A T Kme2 A A R Kme pS	A P A T G G V
	L7	K23me3/K27me/pS28	P R K Q L A T Kme3 A A R Kme pS	A P A T G G V
	L8	K23ac/K27me/pS28	P R K Q L A T Kac A A R Kme pS	A P A T G G V
	L9	K23me/K27me2/pS28	P R K Q L A T Kme A A R Kme2 pS	A P A T G G V
	L10	K23me2/K27me2/pS28	P R K Q L A T Kme2 A A R Kme2 pS	A P A T G G V
	L11	K23me3/K27me2/pS28	P R K Q L A T Kme3 A A R Kme2 pS	A P A T G G V
	L12	K23ac/K27me2/pS28	P R K Q L A T Kac A A R Kme2 pS	A P A T G G V
	L13	K23me/K27me3/pS28	P R K Q L A T Kme A A R Kme3 pS	A P A T G G V
	L14	K23me2/K27me3/pS28	P R K Q L A T Kme2 A A R Kme3 pS	A P A T G G V
	L15	K23me3/K27me3/pS28	P R K Q L A T Kme3 A A R Kme3 pS	A P A T G G V
	L16	K23ac/K27me3/pS28	P R K Q L A T Kac A A R Kme3 pS	A P A T G G V
	L17	K23me/K27ac/pS28	P R K Q L A T Kme A A R Kac pS	A P A T G G V
	L18	K23me2/K27ac/pS28	P R K Q L A T Kme2 A A R Kac pS	A P A T G G V
	M1	K23me3/K27ac/pS28	P R K Q L A T Kme3 A A R Kac pS	A P A T G G V
	M2	K23ac/K27ac/pS28	P R K Q L A T Kac A A R Kac pS	A P A T G G V
	M3	pT22/pS28	P R K Q L A T pT A A R K pS	A P A T G G V
			22 23 27 28 32 36 37	
H3.1 (P68431)	21-40	M4	CONTROL A T K A A R K S A P A T G V K K P H R	
		M5	K27me A T K A A R Kme S A P A T G V K K P H R	
		M6	K27me2 A T K A A R Kme2 S A P A T G V K K P H R	
		M7	K27me3 A T K A A R Kme3 S A P A T G V K K P H R	
		M8	K27ac A T K A A R Kac S A P A T G V K K P H R	
		M9	pS28 A T K A A R K pS A P A T G V K K P H R	
		M10	K27me/pS28 A T K A A R Kme pS A P A T G V K K P H R	
		M11	K27me2/pS28 A T K A A R Kme2 pS A P A T G V K K P H R	
		M12	K27me3/pS28 A T K A A R Kme3 pS A P A T G V K K P H R	
		M13	K27ac/pS28 A T K A A R Kac pS A P A T G V K K P H R	
		M14	pT32 A T K A A R K S A P A pT G V K K P H R	
		M15	pS28/pT32 A T K A A R K pS A P A pT G V K K P H R	
		M16	K27me/pS28/pT32 A T K A A R Kme pS A P A pT G V K K P H R	
		M17	K27me2/pS28/pT32 A T K A A R Kme2 pS A P A pT G V K K P H R	
		M18	K27me3/pS28/pT32 A T K A A R Kme3 pS A P A pT G V K K P H R	
		N1	K27ac/pS28/pT32 A T K A A R Kac pS A P A pT G V K K P H R	
			27 28 32 36 37	
H3.1 (P68431)	26-45	N2	CONTROL R K S A P A T G G V K K P H R Y R P G T	
		N3	K36me R K S A P A T G G V Kme K P H R Y R P G T	
		N4	K36me2 R K S A P A T G G V Kme2 K P H R Y R P G T	
		N5	K36me3 R K S A P A T G G V Kme3 K P H R Y R P G T	
		N6	K36ac R K S A P A T G G V Kac K P H R Y R P G T	
		N7	pT32 R K S A P A pT G G V K K P H R Y R P G T	
		N8	pT32/K36me R K S A P A pT G G V Kme K P H R Y R P G T	
		N9	pT32/K36me2 R K S A P A pT G G V Kme2 K P H R Y R P G T	
		N10	pT32/K36me3 R K S A P A pT G G V Kme3 K P H R Y R P G T	
		N11	pT32/K36ac R K S A P A pT G G V Kac K P H R Y R P G T	
		N12	K37me R K S A P A T G G V K Kme P H R Y R P G T	
		N13	K37me2 R K S A P A T G G V K Kme2 P H R Y R P G T	
		N14	K37me3 R K S A P A T G G V K Kme3 P H R Y R P G T	
		N15	K37ac R K S A P A T G G V K Kac P H R Y R P G T	
		N16	pT32/K37me R K S A P A pT G G V K Kme P H R Y R P G T	
		N17	pT32/K37me2 R K S A P A pT G G V K Kme2 P H R Y R P G T	
		N18	pT32/K37me3 R K S A P A pT G G V K Kme3 P H R Y R P G T	
		O1	pT32/K37ac R K S A P A pT G G V K Kac P H R Y R P G T	
		O2	K36me/K37me R K S A P A T G G V Kme Kme P H R Y R P G T	
		O3	K36me2/K37me R K S A P A T G G V Kme2 Kme P H R Y R P G T	
		O4	K36me3/K37me R K S A P A T G G V Kme3 Kme P H R Y R P G T	
		O5	K36ac/K37me R K S A P A T G G V Kac Kme P H R Y R P G T	
		O6	K36me/K37me2 R K S A P A T G G V Kme Kme2 P H R Y R P G T	
		O7	K36me2/K37me2 R K S A P A T G G V Kme2 Kme2 P H R Y R P G T	
		O8	K36me3/K37me2 R K S A P A T G G V Kme3 Kme2 P H R Y R P G T	
		O9	K36ac/K37me2 R K S A P A T G G V Kac Kme2 P H R Y R P G T	
		O10	K36me/K37me3 R K S A P A T G G V Kme Kme3 P H R Y R P G T	
		O11	K36me2/K37me3 R K S A P A T G G V Kme2 Kme3 P H R Y R P G T	
		O12	K36me3/K37me3 R K S A P A T G G V Kme3 Kme3 P H R Y R P G T	
		O13	K36ac/K37me3 R K S A P A T G G V Kac Kme3 P H R Y R P G T	
		O14	K36me/K37ac R K S A P A T G G V Kac Kac P H R Y R P G T	
		O15	K36me2/K37ac R K S A P A T G G V Kme2 Kac P H R Y R P G T	
		O16	K36me3/K37ac R K S A P A T G G V Kme3 Kac P H R Y R P G T	
		O17	K36ac/K37ac R K S A P A T G G V Kac Kac P H R Y R P G T	
		O18	pT32/K36me/K37me R K S A P A pT G G V Kme Kme P H R Y R P G T	
		P1	pT32/K36me2/K37me R K S A P A pT G G V Kme2 Kme P H R Y R P G T	
		P2	pT32/K36me3/K37me R K S A P A pT G G V Kme3 Kme P H R Y R P G T	
		P3	pT32/K36ac/K37me R K S A P A pT G G V Kac Kme P H R Y R P G T	
		P4	pT32/K36me/K37me2 R K S A P A pT G G V Kme Kme2 P H R Y R P G T	
		P5	pT32/K36me2/K37me2 R K S A P A pT G G V Kme2 Kme2 P H R Y R P G T	
		P6	pT32/K36me3/K37me2 R K S A P A pT G G V Kme3 Kme2 P H R Y R P G T	
		P7	pT32/K36ac/K37me2 R K S A P A pT G G V Kac Kme2 P H R Y R P G T	
		P8	pT32/K36me/K37me3 R K S A P A pT G G V Kme Kme3 P H R Y R P G T	
		P9	pT32/K36me2/K37me3 R K S A P A pT G G V Kme2 Kme3 P H R Y R P G T	
		P10	pT32/K36me3/K37me3 R K S A P A pT G G V Kme3 Kme3 P H R Y R P G T	
		P11	pT32/K36ac/K37me3 R K S A P A pT G G V Kac Kme3 P H R Y R P G T	
		P12	pT32/K36me/K37ac R K S A P A pT G G V Kme Kac P H R Y R P G T	
		P13	pT32/K36me2/K37ac R K S A P A pT G G V Kme2 Kac P H R Y R P G T	
		P14	pT32/K36me3/K37ac R K S A P A pT G G V Kme3 Kac P H R Y R P G T	
		P15	pT32/K36ac/K37ac R K S A P A pT G G V Kac Kac P H R Y R P G T	
		P16	blank	
polyHis CTRL	P17	HHHHHHHHHH		
	P18	HHHHHHHHHH		

Histone	Peptide Length	Array Poition	Kac Mark Combinations	Sequence									
				18	22	23	27	28	A	P	A	T	
H3.1t (Q16695)	16-35	A1	CONTROL	P R K Q L A T	K	V A R K	S	A P A	T	G	G	V	
			pT22	P R K Q L A pT	K	V A R K	S	A P A	T	G	G	V	
			K23me	P R K Q L A T	Kme	V A R K	S	A P A	T	G	G	V	
			K23me2	P R K Q L A T	Kme2	V A R K	S	A P A	T	G	G	V	
			K23me3	P R K Q L A T	Kme3	V A R K	S	A P A	T	G	G	V	
			K23ac	P R K Q L A T	Kac	V A R K	S	A P A	T	G	G	V	
			pT22/K23me	P R K Q L A pT	Kme	V A R K	S	A P A	T	G	G	V	
			pT22/K23me2	P R K Q L A pT	Kme2	V A R K	S	A P A	T	G	G	V	
			pT22/K23me3	P R K Q L A pT	Kme3	V A R K	S	A P A	T	G	G	V	
			pT22/K23ac	P R K Q L A pT	Kac	V A R K	S	A P A	T	G	G	V	
			K27me	P R K Q L A T	K	V A R Kme	S	A P A	T	G	G	V	
			K27me2	P R K Q L A T	K	V A R Kme2	S	A P A	T	G	G	V	
			K27me3	P R K Q L A T	K	V A R Kme3	S	A P A	T	G	G	V	
			K27ac	P R K Q L A T	K	V A R Kac	S	A P A	T	G	G	V	
			K23me/K27me	P R K Q L A T	Kme	V A R Kme	S	A P A	T	G	G	V	
			K23me2/K27me	P R K Q L A T	Kme2	V A R Kme	S	A P A	T	G	G	V	
			K23me3/K27me	P R K Q L A T	Kme3	V A R Kme	S	A P A	T	G	G	V	
			K23ac/K27me	P R K Q L A T	Kac	V A R Kme	S	A P A	T	G	G	V	
			K23me/K27me2	P R K Q L A T	Kme	V A R Kme2	S	A P A	T	G	G	V	
			K23me2/K27me2	P R K Q L A T	Kme2	V A R Kme2	S	A P A	T	G	G	V	
			K23me3/K27me2	P R K Q L A T	Kme3	V A R Kme2	S	A P A	T	G	G	V	
			K23me2/K27me3	P R K Q L A T	Kme2	V A R Kme3	S	A P A	T	G	G	V	
			K23me3/K27me3	P R K Q L A T	Kme3	V A R Kme3	S	A P A	T	G	G	V	
			K23ac/K27me3	P R K Q L A T	Kac	V A R Kme3	S	A P A	T	G	G	V	
			F1	P R K Q L A T	Kac	V A R Kme3	S	A P A	T	G	G	V	
			F2	P R K Q L A T	Kme	V A R Kac	S	A P A	T	G	G	V	
			F3	P R K Q L A T	Kme2	V A R Kac	S	A P A	T	G	G	V	
			F4	P R K Q L A T	Kme3	V A R Kac	S	A P A	T	G	G	V	
			F5	P R K Q L A T	Kac	V A R Kac	S	A P A	T	G	G	V	
			G1	P R K Q L A pT	Kme	V A R Kme	S	A P A	T	G	G	V	
			G2	P R K Q L A pT	Kme2	V A R Kme	S	A P A	T	G	G	V	
			G3	P R K Q L A pT	Kme3	V A R Kme	S	A P A	T	G	G	V	
			G4	P R K Q L A pT	Kme	V A R Kme	S	A P A	T	G	G	V	
			G5	P R K Q L A pT	Kme	V A R Kme2	S	A P A	T	G	G	V	
			H1	P R K Q L A pT	Kme2	V A R Kme2	S	A P A	T	G	G	V	
			H2	P R K Q L A pT	Kme3	V A R Kme2	S	A P A	T	G	G	V	
			H3	P R K Q L A pT	Kac	V A R Kme2	S	A P A	T	G	G	V	
			H4	P R K Q L A pT	Kme	V A R Kme3	S	A P A	T	G	G	V	
			H5	P R K Q L A pT	Kme2	V A R Kme3	S	A P A	T	G	G	V	
			I1	P R K Q L A pT	Kme3	V A R Kme3	S	A P A	T	G	G	V	
			I2	P R K Q L A pT	Kac	V A R Kme3	S	A P A	T	G	G	V	
			I3	P R K Q L A pT	Kme	V A R Kac	S	A P A	T	G	G	V	
			I4	P R K Q L A pT	Kme2	V A R Kac	S	A P A	T	G	G	V	
			I5	P R K Q L A pT	Kme3	V A R Kac	S	A P A	T	G	G	V	
			J1	P R K Q L A pT	Kac	V A R Kac	S	A P A	T	G	G	V	
			J2	pS28	P R K Q L A T	K	V A R K	pS	A P A	T	G	G	V
			J3	K27me/pS28	P R K Q L A T	K	V A R Kme	pS	A P A	T	G	G	V
			J4	K27me2/pS28	P R K Q L A T	K	V A R Kme2	pS	A P A	T	G	G	V
			J5	K27me3/pS28	P R K Q L A T	K	V A R Kme3	pS	A P A	T	G	G	V
			K1	K27ac/pS28	P R K Q L A T	K	V A R Kac	pS	A P A	T	G	G	V
			K2	K23me/K27me/pS28	P R K Q L A T	Kme	V A R Kme	pS	A P A	T	G	G	V
			K3	K23me2/K27me/pS28	P R K Q L A T	Kme2	V A R Kme	pS	A P A	T	G	G	V
			K4	K23me3/K27me/pS28	P R K Q L A T	Kme3	V A R Kme	pS	A P A	T	G	G	V
			K5	K23ac/K27me/pS28	P R K Q L A T	Kac	V A R Kme	pS	A P A	T	G	G	V
			L1	K23me/K27me2/pS28	P R K Q L A T	Kme	V A R Kme2	pS	A P A	T	G	G	V
			L2	K23me2/K27me2/pS28	P R K Q L A T	Kme2	V A R Kme2	pS	A P A	T	G	G	V
			L3	K23me3/K27me2/pS28	P R K Q L A T	Kme3	V A R Kme2	pS	A P A	T	G	G	V
			L4	K23ac/K27me2/pS28	P R K Q L A T	Kac	V A R Kme2	pS	A P A	T	G	G	V
			L5	K23me/K27me3/pS28	P R K Q L A T	Kme	V A R Kme3	pS	A P A	T	G	G	V
			M1	K23me2/K27me3/pS28	P R K Q L A T	Kme2	V A R Kme3	pS	A P A	T	G	G	V
			M2	K23me3/K27me3/pS28	P R K Q L A T	Kme3	V A R Kme3	pS	A P A	T	G	G	V
			M3	K23ac/K27me3/pS28	P R K Q L A T	Kac	V A R Kme3	pS	A P A	T	G	G	V
			M4	K23me/K27ac/pS28	P R K Q L A T	Kme	V A R Kac	pS	A P A	T	G	G	V
			M5	K23me2/K27ac/pS28	P R K Q L A T	Kme2	V A R Kac	pS	A P A	T	G	G	V
			N1	K23me3/K27ac/pS28	P R K Q L A T	Kme3	V A R Kac	pS	A P A	T	G	G	V
			N2	K23ac/K27ac/pS28	P R K Q L A T	Kac	V A R Kac	pS	A P A	T	G	G	V
			N3	pT22/pS28	P R K Q L A T	pT	V A R K	pS	A P A	T	G	G	V

Histone	Peptide Length	Array Poition	Kac Mark Combinations	22	23	27	28	32	36	37													
				A	T	K	V	A	R	K	S	G	G	K	P	H	R						
H3.1t (Q16695)	21-40	N4	CONTROL	A	T	K	V	A	R	K	S	A	P	A	T	G	V	K	K	P	H	R	
		N5	K27me	A	T	K	V	A	R	Kme	S	A	P	A	T	G	G	V	K	K	P	H	R
		O1	K27me2	A	T	K	V	A	R	Kme2	S	A	P	A	T	G	G	V	K	K	P	H	R
		O2	K27me3	A	T	K	V	A	R	Kme3	S	A	P	A	T	G	G	V	K	K	P	H	R
		O3	K27ac	A	T	K	V	A	R	Kac	S	A	P	A	T	G	G	V	K	K	P	H	R
		O4	pS28	A	T	K	V	A	R	K	ps	A	P	A	T	G	G	V	K	K	P	H	R
		O5	K27me/pS28	A	T	K	V	A	R	Kme	ps	A	P	A	T	G	G	V	K	K	P	H	R
		P1	K27me2/pS28	A	T	K	V	A	R	Kme2	ps	A	P	A	T	G	G	V	K	K	P	H	R
		P2	K27me3/pS28	A	T	K	V	A	R	Kme3	ps	A	P	A	T	G	G	V	K	K	P	H	R



polyHis CTRL

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence									
				22	23	27	28	31	32	36	37		
polyHis CTRL	21-40	A3	HHHHHHHH	A	T	K	A	A	R	G	G	V	K
			HHHHHHHH	A	T	K	A	A	R	G	G	V	K
			CONTROL	A	T	K	A	A	R	G	G	V	K
			K27me	A	T	K	A	A	R	K	G	G	V
			K27me2	A	T	K	A	A	R	Kme	G	G	V
			K27me3	A	T	K	A	A	R	Kme2	G	G	V
			K27ac	A	T	K	A	A	R	Kme3	G	G	V
			pS28	A	T	K	A	A	R	Kac	S	A	P
			K27me/pS28	A	T	K	A	A	R	K	pS	A	P
			K27me2/pS28	A	T	K	A	A	R	Kme	pS	A	P
			K27me3/pS28	A	T	K	A	A	R	Kme2	pS	A	P
			K27ac/pS28	A	T	K	A	A	R	Kme3	pS	A	P
			C1	A	T	K	A	A	R	Kac	pS	A	P
			pT32	A	T	K	A	A	R	K	S	A	P
			pS28/pT32	A	T	K	A	A	R	K	pS	A	P
			K27me/pS28/pT32	A	T	K	A	A	R	Kme	pS	A	P
			K27me2/pS28/pT32	A	T	K	A	A	R	Kme2	pS	A	P
			K27me3/pS28/pT32	A	T	K	A	A	R	Kme3	pS	A	P
			K27ac/pS28/pT32	A	T	K	A	A	R	Kac	pS	A	P
			D1	A	T	K	A	A	R	K	S	A	P
			D2	A	T	K	A	A	R	Kme	S	A	P
			D3	A	T	K	A	A	R	Kme2	S	A	P
			D4	A	T	K	A	A	R	Kme3	S	A	P
			D5	A	T	K	A	A	R	Kac	S	A	P
			D6	A	T	K	A	A	R	K	S	A	P
H3.3 (P84243)	26-45	E1	CONTROL	R	K	S	A	P	S	T	G	G	V
			pS31	R	K	S	A	P	pS	T	G	G	V
			K36me	R	K	S	A	P	S	T	G	G	V
			K36me2	R	K	S	A	P	S	T	G	G	V
			K36me3	R	K	S	A	P	S	T	G	G	V
			K36ac	R	K	S	A	P	S	T	G	G	V
			F1	R	K	S	A	P	S	T	G	G	V
			pS31/K36me	R	K	S	A	P	pS	T	G	G	V
			F2	R	K	S	A	P	S	T	G	G	V
			pS31/K36me2	R	K	S	A	P	S	T	G	G	V
			F3	R	K	S	A	P	S	T	G	G	V
			F4	R	K	S	A	P	S	T	G	G	V
			F5	R	K	S	A	P	S	pT	G	G	V
			F6	R	K	S	A	P	S	pT	G	G	V
			G1	R	K	S	A	P	S	pT	G	G	V
			G2	R	K	S	A	P	S	pT	G	G	V
			G3	R	K	S	A	P	S	pT	G	G	V
			G4	R	K	S	A	P	S	pT	G	G	V
			G5	R	K	S	A	P	S	T	G	G	V
			G6	R	K	S	A	P	S	T	G	G	V
			H1	R	K	S	A	P	S	T	G	G	V
			H2	R	K	S	A	P	pS	T	G	G	V
			H3	R	K	S	A	P	pS	T	G	G	V
			H4	R	K	S	A	P	pS	T	G	G	V
			H5	R	K	S	A	P	pS	T	G	G	V
			H6	R	K	S	A	P	S	pT	G	G	V
			I1	R	K	S	A	P	S	pT	G	G	V
			I2	R	K	S	A	P	S	pT	G	G	V
			I3	R	K	S	A	P	S	pT	G	G	V
			I4	R	K	S	A	P	pS	T	G	G	V
			I5	R	K	S	A	P	pS	T	G	G	V
			I6	R	K	S	A	P	pS	T	G	G	V
			J1	R	K	S	A	P	pS	T	G	G	V
			J2	R	K	S	A	P	pS	T	G	G	V
			J3	R	K	S	A	P	pS	T	G	G	V
			J4	R	K	S	A	P	pS	T	G	G	V
			J5	R	K	S	A	P	pS	T	G	G	V
			J6	R	K	S	A	P	pS	T	G	G	V
			K1	R	K	S	A	P	pS	T	G	G	V
			K2	R	K	S	A	P	pS	T	G	G	V
			K3	R	K	S	A	P	pS	T	G	G	V
			K4	R	K	S	A	P	pS	T	G	G	V
			K5	R	K	S	A	P	pS	T	G	G	V
			K6	R	K	S	A	P	pS	T	G	G	V
			L1	R	K	S	A	P	pS	T	G	G	V
			L2	R	K	S	A	P	S	T	G	G	V
			L3	R	K	S	A	P	S	T	G	G	V
			L4	R	K	S	A	P	S	T	G	G	V
			L5	R	K	S	A	P	S	T	G	G	V
			L6	R	K	S	A	P	S	T	G	G	V
			M1	R	K	S	A	P	S	T	G	G	V
			M2	R	K	S	A	P	S	T	G	G	V
			M3	R	K	S	A	P	S	T	G	G	V
			M4	R	K	S	A	P	S	T	G	G	V
			M5	R	K	S	A	P	S	T	G	G	V
			M6	R	K	S	A	P	S	T	G	G	V
			N1	R	K	S	A	P	S	T	G	G	V
			N2	R	K	S	A	P	S	T	G	G	V
			N3	R	K	S	A	P	S	T	G	G	V
			N4	R	K	S	A	P	S	T	G	G	V
			N5	R	K	S	A	P	S	T	G	G	V
			N6	R	K	S	A	P	S	pT	G	G	V
			O1	R	K	S	A	P	S	pT	G	G	V
			O2	R	K	S	A	P	S	pT	G	G	V

Histone	Peptide Length	Array Position	Kac Mark Combinations	Sequence
polyHis CTRL		A1	HHHHHHHH	
polyHis CTRL		A2	HHHHHHHH	
		A3	Blank	
H4 (P62805)	1-20	A4	CONTROL	S G R G K G G K G L G K G G A K R H R K
		A5	pS1	pS G R G K G G K G L G K G G A K R H R K
		A6	K5me	S G R G X1 G G K G L G K G G A K R H R K
		A7	K5me2	S G R G X2 G G K G L G K G G A K R H R K
		A8	K5me3	S G R G X3 G G K G L G K G G A K R H R K
		A9	K5ac	S G R G X4 G G K G L G K G G A K R H R K
		A10	K8me	S G R G K G G X1 G L G K G G A K R H R K
		A11	K8me2	S G R G K G G X2 G L G K G G A K R H R K
		A12	K8me3	S G R G K G G X3 G L G K G G A K R H R K
		A13	K8ac	S G R G K G G X4 G L G K G G A K R H R K
		A14	K12me	S G R G K G G X1 G L G K G G A K R H R K
		A15	K12me2	S G R G K G G X2 G L G K G G A K R H R K
		A16	K12me3	S G R G K G G X3 G L G K G G A K R H R K
		A17	K12ac	S G R G K G G X4 G L G K G G A K R H R K
		A18	pS1/K5me	pS G R G X1 G G K G L G K G G A K R H R K
		A19	pS1/K5me2	pS G R G X2 G G K G L G K G G A K R H R K
		A20	pS1/K5me3	pS G R G X3 G G K G L G K G G A K R H R K
		A21	pS1/K5ac	pS G R G X4 G G K G L G K G G A K R H R K
		A22	pS1/K8me	pS G R G K G G X1 G L G K G G A K R H R K
		A23	pS1/K8me2	pS G R G K G G X2 G L G K G G A K R H R K
		A24	pS1/K8me3	pS G R G K G G X3 G L G K G G A K R H R K
		A25	pS1/K8ac	pS G R G K G G X4 G L G K G G A K R H R K
		A26	K5me/K8me	S G R G X1 G G X1 G L G K G G A K R H R K
		A27	K5me/K8me2	S G R G X1 G G X2 G L G K G G A K R H R K
		A28	K5me/K8me3	S G R G X1 G G X3 G L G K G G A K R H R K
		A29	K5me/K8ac	S G R G X1 G G X4 G L G K G G A K R H R K
		A30	K5me2/K8me	S G R G X2 G G X1 G L G K G G A K R H R K
		A31	K5me2/K8me2	S G R G X2 G G X2 G L G K G G A K R H R K
		A32	K5me2/K8me3	S G R G X2 G G X3 G L G K G G A K R H R K
		A33	K5me2/K8ac	S G R G X2 G G X4 G L G K G G A K R H R K
		A34	K5me3/K8me	S G R G X3 G G X1 G L G K G G A K R H R K
		A35	K5me3/K8me2	S G R G X3 G G X2 G L G K G G A K R H R K
		A36	K5me3/K8me3	S G R G X3 G G X3 G L G K G G A K R H R K
		A37	K5me3/K8ac	S G R G X3 G G X4 G L G K G G A K R H R K
		B1	K5ac/K8me	S G R G X4 G G X1 G L G K G G A K R H R K
		B2	K5ac/K8me2	S G R G X4 G G X2 G L G K G G A K R H R K
		B3	K5ac/K8me3	S G R G X4 G G X3 G L G K G G A K R H R K
		B4	K5ac/K8ac	S G R G X4 G G X4 G L G K G G A K R H R K
		B5	K8me/K12me	S G R G K G G X1 G L G K G G A K R H R K
		B6	K8me/K12me2	S G R G K G G X2 G L G K G G A K R H R K
		B7	K8me/K12me3	S G R G K G G X3 G L G K G G A K R H R K
		B8	K8me/K12ac	S G R G K G G X4 G L G K G G A K R H R K
		B9	K8me2/K12me	S G R G K G G X2 G L G K G G A K R H R K
		B10	K8me2/K12me2	S G R G K G G X2 G L G K G G A K R H R K
		B11	K8me2/K12me3	S G R G K G G X2 G L G K G G A K R H R K
		B12	K8me2/K12ac	S G R G K G G X4 G L G K G G A K R H R K
		B13	K8me3/K12me	S G R G K G G X3 G L G K G G A K R H R K
		B14	K8me3/K12me2	S G R G K G G X3 G L G K G G A K R H R K
		B15	K8me3/K12me3	S G R G K G G X3 G L G K G G A K R H R K
		B16	K8me3/K12ac	S G R G K G G X4 G L G K G G A K R H R K
		B17	K8ac/K12me	S G R G K G G X4 G L G K G G A K R H R K
		B18	K8ac/K12me2	S G R G K G G X4 G L G K G G A K R H R K
		B19	K8ac/K12me3	S G R G K G G X4 G L G K G G A K R H R K
		B20	K8ac/K12ac	S G R G K G G X4 G L G K G G A K R H R K
		B21	pS1/K5me/K8me	pS G R G X1 G G X1 G L G K G G A K R H R K
		B22	pS1/K5me/K8me2	pS G R G X1 G G X2 G L G K G G A K R H R K
		B23	pS1/K5me/K8me3	pS G R G X1 G G X3 G L G K G G A K R H R K
		B24	pS1/K5me/K8ac	pS G R G X1 G G X4 G L G K G G A K R H R K
		B25	pS1/K5me2/K8me	pS G R G X2 G G X1 G L G K G G A K R H R K
		B26	pS1/K5me2/K8me2	pS G R G X2 G G X2 G L G K G G A K R H R K
		B27	pS1/K5me2/K8me3	pS G R G X2 G G X3 G L G K G G A K R H R K
		B28	pS1/K5me2/K8ac	pS G R G X2 G G X4 G L G K G G A K R H R K
		B29	pS1/K5me3/K8me	pS G R G X3 G G X1 G L G K G G A K R H R K
		B30	pS1/K5me3/K8me2	pS G R G X3 G G X2 G L G K G G A K R H R K
		B31	pS1/K5me3/K8me3	pS G R G X3 G G X3 G L G K G G A K R H R K
		B32	pS1/K5me3/K8ac	pS G R G X3 G G X4 G L G K G G A K R H R K
		B33	pS1/K5ac/K8me	pS G R G X4 G G X1 G L G K G G A K R H R K
		B34	pS1/K5ac/K8me2	pS G R G X4 G G X2 G L G K G G A K R H R K
		B35	pS1/K5ac/K8me3	pS G R G X4 G G X3 G L G K G G A K R H R K
		B36	pS1/K5ac/K8ac	pS G R G X4 G G X4 G L G K G G A K R H R K
		B37	K5ac/K8ac/K12ac	S G R G X4 G G X4 G L G K G G A K R H R K
		C1		
		C2	CONTROL	G G K G L G K G G A K R H R K V L R D N
		C3	K12me	G G K G L G X1 G G A K R H R K V L R D N
		C4	K12me2	G G K G L G X2 G G A K R H R K V L R D N
		C5	K12me3	G G K G L G X3 G G A K R H R K V L R D N
		C6	K12ac	G G K G L G X4 G G A K R H R K V L R D N
		C7	K16me	G G K G L G K G G A X1 R H R K V L R D N
		C8	K16me2	G G K G L G K G G A X2 R H R K V L R D N
		C9	K16me3	G G K G L G K G G A X3 R H R K V L R D N
		C10	K16ac	G G K G L G K G G A X4 R H R K V L R D N
		C11	K20me	G G K G L G K G G A K R H R X1 V L R D N
		C12	K20me2	G G K G L G K G G A K R H R X2 V L R D N
		C13	K20me3	G G K G L G K G G A K R H R X3 V L R D N
		C14	K20ac	G G K G L G K G G A K R H R X4 V L R D N
		C15	K12me/K16me	G G K G L G X1 G G A X1 R H R K V L R D N
		C16	K12me/K16me2	G G K G L G X2 G G A X2 R H R K V L R D N
		C17	K12me/K16me3	G G K G L G X1 G G A X3 R H R K V L R D N
		C18	K12me/K16ac	G G K G L G X2 G G A X4 R H R K V L R D N
		C19	K12me2/K16me	G G K G L G X3 G G A X1 R H R K V L R D N
		C20	K12me2/K16me2	G G K G L G X2 G G A X2 R H R K V L R D N
		C21	K12me2/K16me3	G G K G L G X2 G G A X3 R H R K V L R D N
		C22	K12me2/K16ac	G G K G L G X2 G G A X4 R H R K V L R D N
		C23	K12me3/K16me	G G K G L G X3 G G A X1 R H R K V L R D N
		C24	K12me3/K16me2	G G K G L G X3 G G A X2 R H R K V L R D N
		C25	K12me3/K16me3	G G K G L G X3 G G A X3 R H R K V L R D N

C26	K12me3/K16ac	G G K G L G X3 G G A X4 R H R K V L R D N
C27	K12ac/K16me	G G K G L G X4 G G A X1 R H R K V L R D N
C28	K12ac/K16me2	G G K G L G X4 G G A X2 R H R K V L R D N
C29	K12ac/K16me3	G G K G L G X4 G G A X3 R H R K V L R D N
C30	K12ac/K16ac	G G K G L G X4 G G A X4 R H R K V L R D N
C31	K16me/K20me	G G K G L G K G G A X1 R H R X1 V L R D N
C32	K16me/K20me2	G G K G L G K G G A X1 R H R X2 V L R D N
C33	K16me/K20me3	G G K G L G K G G A X1 R H R X3 V L R D N
C34	K16me/K20ac	G G K G L G K G G A X1 R H R X4 V L R D N
C35	K16me2/K20me	G G K G L G K G G A X2 R H R X1 V L R D N
C36	K16me2/K20me2	G G K G L G K G G A X2 R H R X2 V L R D N
C37	K16me2/K20me3	G G K G L G K G G A X2 R H R X3 V L R D N
D1	K16me2/K20ac	G G K G L G K G G A X2 R H R X4 V L R D N
D2	K16me3/K20me	G G K G L G K G G A X3 R H R X1 V L R D N
D3	K16me3/K20me2	G G K G L G K G G A X3 R H R X2 V L R D N
D4	K16me3/K20me3	G G K G L G K G G A X3 R H R X3 V L R D N
D5	K16me3/K20ac	G G K G L G K G G A X3 R H R X4 V L R D N
D6	K16ac/K20me	G G K G L G K G G A X4 R H R X1 V L R D N
D7	K16ac/K20me2	G G K G L G K G G A X4 R H R X2 V L R D N
D8	K16ac/K20me3	G G K G L G K G G A X4 R H R X3 V L R D N
D9	K16ac/K20ac	G G K G L G K G G A X4 R H R X4 V L R D N
D10	K12ac/K16ac/K20ac	G G K G L G X4 G G A X4 R H R X4 V L R D N
D11		
D12	CONTROL	G K G G A K R H R K V L R D N I Q G I T
D13	K16me	G K G G A X1 R H R K V L R D N I Q G I T
D14	K16me2	G K G G A X2 R H R K V L R D N I Q G I T
D15	K16me3	G K G G A X3 R H R K V L R D N I Q G I T
D16	K16ac	G K G G A X4 R H R K V L R D N I Q G I T
D17	K20me	G K G G A X4 R H R K R H R X1 V L R D N I Q G I T
D18	K20me2	G K G G A K R H R X2 V L R D N I Q G I T
D19	K20me3	G K G G A K R H R X3 V L R D N I Q G I T
D20	K20ac	G K G G A K R H R X4 V L R D N I Q G I T
D21	K16me/K20me	G K G G A X1 R H R X1 V L R D N I Q G I T
D22	K16me/K20me2	G K G G A X1 R H R X2 V L R D N I Q G I T
D23	K16me/K20me3	G K G G A X1 R H R X3 V L R D N I Q G I T
D24	K16me/K20ac	G K G G A X1 R H R X4 V L R D N I Q G I T
D25	K16me2/K20me	G K G G A X2 R H R X1 V L R D N I Q G I T
D26	K16me2/K20me2	G K G G A X2 R H R X2 V L R D N I Q G I T
D27	K16me2/K20me3	G K G G A X2 R H R X3 V L R D N I Q G I T
D28	K16me2/K20ac	G K G G A X2 R H R X4 V L R D N I Q G I T
D29	K16me3/K20me	G K G G A X3 R H R X1 V L R D N I Q G I T
D30	K16me3/K20me2	G K G G A X3 R H R X2 V L R D N I Q G I T
D31	K16me3/K20me3	G K G G A X3 R H R X3 V L R D N I Q G I T
D32	K16me3/K20ac	G K G G A X3 R H R X4 V L R D N I Q G I T
D33	K16ac/K20me	G K G G A X4 R H R X1 V L R D N I Q G I T
D34	K16ac/K20me2	G K G G A X4 R H R X2 V L R D N I Q G I T
D35	K16ac/K20me3	G K G G A X4 R H R X3 V L R D N I Q G I T
D36	K16ac/K20ac	G K G G A X4 R H R X4 V L R D N I Q G I T
D37		
E1	CONTROL	K R H R K V L R D N I Q G I T K P A O R
E2	K20me	K R H R X1 V L R D N I Q G I T K P A O R
E3	K20me2	K R H R X2 V L R D N I Q G I T K P A O R
E4	K20me3	K R H R X3 V L R D N I Q G I T K P A O R
E5	K20ac	K R H R X4 V L R D N I Q G I T K P A O R
E6		
E7	CONTROL	V L R D N I Q G I T K P A O R E L A R R
E8	pT30	V L R D N I Q G I pT K P A O R E L A R R
E9	K31me	V L R D N I Q G I T X1 P A O R E L A R R
E10	K31me2	V L R D N I Q G I T X2 P A O R E L A R R
E11	K31me3	V L R D N I Q G I T X3 P A O R E L A R R
E12	K31ac	V L R D N I Q G I T X4 P A O R E L A R R
E13	pT30/K31me	V L R D N I Q G I pT X1 P A O R E L A R R
E14	pT30/K31me2	V L R D N I Q G I pT X2 P A O R E L A R R
E15	pT30/K31me3	V L R D N I Q G I pT X3 P A O R E L A R R
E16	pT30/K31ac	V L R D N I Q G I pT X4 P A O R E L A R R

