

## Histone Set 5 - Phosphorylation and Arginine Methylation Library

<b>A1</b>		<b>Control 1</b>		<b>E1</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> Ci8	AATKQTA $\hat{C}$ KSTGGKAPRKQL	-spacer-Biotin
<b>A2</b>	H2a <sub>1-20</sub>	SGRGKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E2</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> aR8me	A $\Psi$ TKQTA $\hat{E}$ KSTGGKAPRKQL	-spacer-Biotin
<b>A3</b>	H2a <sub>1-20</sub> S1phos	$\Sigma$ GRGKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E3</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> aR8me <sub>2</sub>	A $\Psi$ TKQTA $\hat{A}$ KSTGGKAPRKQL	-spacer-Biotin
<b>A4</b>	H2a <sub>1-20</sub> R3me	SG $\hat{E}$ GKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E4</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> aR8me <sub>2</sub> a	A $\Psi$ TKQTA $\Psi$ KSTGGKAPRKQL	-spacer-Biotin
<b>A5</b>	H2a <sub>1-20</sub> R3me <sub>2</sub>	SG $\hat{A}$ GKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E5</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> aCi8	A $\Psi$ TKQTA $\hat{C}$ KSTGGKAPRKQL	-spacer-Biotin
<b>A6</b>	H2a <sub>1-20</sub> R3me <sub>2</sub> a	SG $\Psi$ GKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E6</b>	H3 <sub>1-32</sub>	Ac-GKAPRKQLATKAARKSAPAT	-spacer-Biotin
<b>A7</b>	H2a <sub>1-20</sub> Ci3	SG $\hat{C}$ GKQGGKARAKAKTRSSR	-spacer-Biotin	<b>E7</b>	H3 <sub>1-32</sub> R17me	Ac-GKAP $\hat{E}$ KQLATKAARKSAPAT	-spacer-Biotin
<b>A8</b>	H2a <sub>110-128</sub>	Ac-NIQAVLLPKKTESHHKAKGK	-spacer-Biotin	<b>E8</b>	H3 <sub>1-32</sub> R17me <sub>2</sub>	Ac-GKAP $\hat{A}$ KQLATKAARKSAPAT	-spacer-Biotin
<b>A9</b>	H2a <sub>110-128</sub> T120phos	Ac-NIQAVLLPKK $\hat{Q}$ ESHKAKGK	-spacer-Biotin	<b>E9</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> a	Ac-GKAP $\Psi$ KQLATKAARKSAPAT	-spacer-Biotin
<b>A10</b>	H2b <sub>1-20</sub>	PEPAKSAPAPKKGSKKAVTK	-spacer-Biotin	<b>E10</b>	H3 <sub>1-32</sub> Ci17	Ac-GKAP $\hat{C}$ KQLATKAARKSAPAT	-spacer-Biotin
<b>A11</b>	H2b <sub>1-20</sub> S6phos	PEPAK $\Sigma$ APAPKKGSKKAVTK	-spacer-Biotin	<b>E11</b>	H3 <sub>1-32</sub> R26me	Ac-GKAPRKQLATKAA $\hat{A}$ KSAPAT	-spacer-Biotin
<b>A12</b>	H2b <sub>1-20</sub> S14phos	PEPAKSAPAPKKG $\Sigma$ KKAVTK	-spacer-Biotin	<b>E12</b>	H3 <sub>1-32</sub> R26me <sub>2</sub>	Ac-GKAPRKQLATKAA $\hat{A}$ KSAPAT	-spacer-Biotin
<b>B1</b>	H2b <sub>1-20</sub> S6phosS14phos	PEPAK $\Sigma$ APAPKKG $\hat{E}$ KKAVTK	-spacer-Biotin	<b>F1</b>	H3 <sub>1-32</sub> R26me <sub>2</sub> a	Ac-GKAPRKQLATKAA $\Psi$ KSAPAT	-spacer-Biotin
<b>B2</b>	H2b <sub>27-46</sub>	Ac-KKRKRSRKESYSVYVYKVLK	-spacer-Biotin	<b>F2</b>	H3 <sub>1-32</sub> Ci26	Ac-GKAPRKQLATKAA $\hat{C}$ KSAPAT	-spacer-Biotin
<b>B3</b>	H2b <sub>27-46</sub> S32phos	Ac-KKRK $\hat{R}$ SRKESYSVYVYKVLK	-spacer-Biotin	<b>F3</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> R26me <sub>2</sub>	Ac-GKAP $\hat{A}$ KQLATKAA $\hat{A}$ KSAPAT	-spacer-Biotin
<b>B4</b>	H2b <sub>27-46</sub> S38phos	Ac-KKRKRSRKESY $\Sigma$ VYVYKVLK	-spacer-Biotin	<b>F4</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> R26me <sub>2</sub> a	Ac-GKAP $\hat{A}$ KQLATKAA $\Psi$ KSAPAT	-spacer-Biotin
<b>B5</b>	H2b <sub>27-46</sub> S32phosS38phos	Ac-KKRK $\hat{R}$ SRKESY $\Sigma$ VYVYKVLK	-spacer-Biotin	<b>F5</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> Ci26	Ac-GKAP $\hat{A}$ KQLATKAA $\hat{C}$ KSAPAT	-spacer-Biotin
<b>B6</b>	H2b <sub>27-46</sub> S36phosS38phos	Ac-KKRKRSRKE $\Sigma$ Y $\Sigma$ VYVYKVLK	-spacer-Biotin	<b>F6</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> aR26me <sub>2</sub>	Ac-GKAP $\Psi$ KQLATKAA $\hat{A}$ KSAPAT	-spacer-Biotin
<b>B7</b>	H2b <sub>27-46</sub> S32phosS36phos	Ac-KKRK $\hat{R}$ SRKE $\Sigma$ Y $\Sigma$ VYVYKVLK	-spacer-Biotin	<b>F7</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> aR26me <sub>2</sub> a	Ac-GKAP $\Psi$ KQLATKAA $\Psi$ KSAPAT	-spacer-Biotin
<b>B8</b>	H2b <sub>27-46</sub> S32phosS36phosS38phos	Ac-KKRK $\hat{R}$ SRKE $\Sigma$ Y $\Sigma$ VYVYKVLK	-spacer-Biotin	<b>F8</b>	H3 <sub>1-32</sub> R17me <sub>2</sub> aCi26	Ac-GKAP $\Psi$ KQLATKAA $\hat{C}$ KSAPAT	-spacer-Biotin
<b>B9</b>	H3 <sub>1-20</sub>	ARTKQTARKSTGGKAPRKQL	-spacer-Biotin	<b>F9</b>	H3 <sub>1-32</sub> Ci17R26me <sub>2</sub>	Ac-GKAP $\hat{C}$ KQLATKAA $\hat{A}$ KSAPAT	-spacer-Biotin
<b>B10</b>	H3 <sub>1-20</sub> T3phos	AR $\hat{O}$ KQTARKSTGGKAPRKQL	-spacer-Biotin	<b>F10</b>	H3 <sub>1-32</sub> Ci17R26me <sub>2</sub> a	Ac-GKAP $\hat{C}$ KQLATKAA $\Psi$ KSAPAT	-spacer-Biotin
<b>B11</b>	H3 <sub>1-20</sub> T6phos	ARTKQ $\hat{O}$ ARKSTGGKAPRKQL	-spacer-Biotin	<b>F11</b>	H3 <sub>1-32</sub> Ci17Ci26	Ac-GKAP $\hat{C}$ KQLATKAA $\hat{C}$ KSAPAT	-spacer-Biotin
<b>B12</b>	H3 <sub>1-20</sub> T11phos	ARTKQTARKS $\hat{O}$ GGKAPRKQL	-spacer-Biotin	<b>F12</b>	H3 <sub>22-41</sub>	Ac-TKAARKSAPATGGVKKPHRY	-spacer-Biotin
<b>C1</b>	H3 <sub>1-20</sub> T3phosT6phos	AR $\hat{O}$ KQ $\hat{O}$ ARKSTGGKAPRKQL	-spacer-Biotin	<b>G1</b>	H3 <sub>22-41</sub> S28phos	Ac-TKAARK $\Sigma$ APATGGVKKPHRY	-spacer-Biotin
<b>C2</b>	H3 <sub>1-20</sub> T3phosT11phos	AR $\hat{O}$ KQTARKS $\hat{O}$ GGKAPRKQL	-spacer-Biotin	<b>G2</b>	H3 <sub>22-41</sub> T32phos	Ac-TKAARKSAPATGGVKKPHRY	-spacer-Biotin
<b>C3</b>	H3 <sub>1-20</sub> T6phosT11phos	ARTKQ $\hat{O}$ ARKS $\hat{O}$ GGKAPRKQL	-spacer-Biotin	<b>G3</b>	H3 <sub>22-41</sub> S28phosT32phos	Ac-TKAARK $\Sigma$ APATGGVKKPHRY	-spacer-Biotin
<b>C4</b>	H3 <sub>1-20</sub> T3phosT6phosT11phos	AR $\hat{O}$ KQ $\hat{O}$ ARKS $\hat{O}$ GGKAPRKQL	-spacer-Biotin	<b>G4</b>	H3 <sub>34-53</sub>	Ac-GVKKPHRYRPGTVALREIRR	-spacer-Biotin
<b>C5</b>	H3 <sub>1-20</sub> S10phos	ARTKQTARK $\Sigma$ TGGKAPRKQL	-spacer-Biotin	<b>G5</b>	H3 <sub>34-53</sub> Y41phos	Ac-GVKKPHR $\hat{T}$ RPGTVALREIRR	-spacer-Biotin
<b>C6</b>	H3 <sub>1-20</sub> T3phosS10phos	AR $\hat{O}$ KQTARK $\Sigma$ TGGKAPRKQL	-spacer-Biotin	<b>G6</b>	H3 <sub>50-69</sub>	Ac-EIRRYQKSTELLIRKLPFQR	-spacer-Biotin
<b>C7</b>	H3 <sub>1-20</sub> T6phosS10phos	ARTKQ $\hat{O}$ ARK $\Sigma$ TGGKAPRKQL	-spacer-Biotin	<b>G7</b>	H3 <sub>50-69</sub> S57phos	Ac-EIRRYQK $\Sigma$ TELLIRKLPFQR	-spacer-Biotin
<b>C8</b>	H3 <sub>1-20</sub> T3phosS10phosT11phos	AR $\hat{O}$ KQTARK $\Sigma$ GGKAPRKQL	-spacer-Biotin	<b>G8</b>	H4 <sub>1-20</sub>	SGRGKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>C9</b>	H3 <sub>1-20</sub> T6phosS10phosT11phos	ARTKQ $\hat{O}$ ARK $\Sigma$ GGKAPRKQL	-spacer-Biotin	<b>G9</b>	H4 <sub>1-20</sub> R3me	SG $\hat{E}$ GKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>C10</b>	H3 <sub>1-20</sub> T3phosT6phosS10phosT11phos	AR $\hat{O}$ KQ $\hat{O}$ ARK $\Sigma$ GGKAPRKQL	-spacer-Biotin	<b>G10</b>	H4 <sub>1-20</sub> R3me <sub>2</sub>	SG $\hat{A}$ GKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>C11</b>	H3 <sub>1-20</sub> R2me	A $\hat{E}$ TKQTARKSTGGKAPRKQL	-spacer-Biotin	<b>G11</b>	H4 <sub>1-20</sub> R3me <sub>2</sub> a	SG $\Psi$ GKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>C12</b>	H3 <sub>1-20</sub> R2me <sub>2</sub>	AATKQTARKSTGGKAPRKQL	-spacer-Biotin	<b>G12</b>	H4 <sub>1-20</sub> Ci3	SG $\hat{C}$ GKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>D1</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> a	A $\Psi$ TKQTARKSTGGKAPRKQL	-spacer-Biotin	<b>H1</b>	H4 <sub>1-20</sub> S1phos	$\Sigma$ GRGKGGKGLGKGGAKRHRK	-spacer-Biotin
<b>D2</b>	H3 <sub>1-20</sub> R8me	ARTKQTA $\hat{E}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H2</b>	H4 <sub>40-59</sub>	Ac-RGGVKRISGLIYEETRGLVK	-spacer-Biotin
<b>D3</b>	H3 <sub>1-20</sub> R8me <sub>2</sub>	ARTKQTA $\hat{A}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H3</b>	H4 <sub>40-59</sub> S47phos	Ac-RGGVKRI $\Sigma$ GLIYEETRGLVK	-spacer-Biotin
<b>D4</b>	H3 <sub>1-20</sub> R8me <sub>2</sub> a	ARTKQTA $\Psi$ KSTGGKAPRKQL	-spacer-Biotin	<b>H4</b>	H4 <sub>40-59</sub> Y51phos	Ac-RGGVKRISGLI $\hat{T}$ EETRGLVK	-spacer-Biotin
<b>D5</b>	H3 <sub>1-20</sub> Ci8	ARTKQTA $\hat{C}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H5</b>	H4 <sub>40-59</sub> S47phosY51phos	Ac-RGGVKRI $\Sigma$ GLI $\hat{T}$ EETRGLVK	-spacer-Biotin
<b>D6</b>	H3 <sub>1-20</sub> R2meR8me	A $\hat{E}$ TKQTA $\hat{E}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H6</b>	H4 <sub>80-99</sub>	Ac-TVTAMDVVYALKRQGRITLYG	-spacer-Biotin
<b>D7</b>	H3 <sub>1-20</sub> R2meR8me <sub>2</sub>	A $\hat{E}$ TKQTA $\hat{A}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H7</b>	H4 <sub>80-99</sub> Y88phos	Ac-TVTAMDVV $\hat{T}$ ALKRQGRITLYG	-spacer-Biotin
<b>D8</b>	H3 <sub>1-20</sub> R2meR8me <sub>2</sub> a	A $\hat{E}$ TKQTA $\Psi$ KSTGGKAPRKQL	-spacer-Biotin	<b>H8</b>	H4 <sub>80-99</sub> R92me	Ac-TVTAMDVVYALK $\hat{E}$ QGRITLYG	-spacer-Biotin
<b>D9</b>	H3 <sub>1-20</sub> R2meCi8	A $\hat{E}$ TKQTA $\hat{C}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H9</b>	H4 <sub>80-99</sub> R92me <sub>2</sub>	Ac-TVTAMDVVYALK $\hat{A}$ QGRITLYG	-spacer-Biotin
<b>D10</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> R8me	AATKQTA $\hat{E}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H10</b>	H4 <sub>80-99</sub> R92me <sub>2</sub> a	Ac-TVTAMDVVYALK $\Psi$ QGRITLYG	-spacer-Biotin
<b>D11</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> R8me <sub>2</sub>	AATKQTA $\hat{A}$ KSTGGKAPRKQL	-spacer-Biotin	<b>H11</b>	H4 <sub>80-99</sub> Ci92	Ac-TVTAMDVVYALK $\hat{C}$ QGRITLYG	-spacer-Biotin
<b>D12</b>	H3 <sub>1-20</sub> R2me <sub>2</sub> R8me <sub>2</sub> a	AATKQTA $\Psi$ KSTGGKAPRKQL	-spacer-Biotin	<b>H12</b>		<b>Control 2</b>	

$\Sigma$ = phospho-Ser	$\Omega$ = phospho-Thr	$\Gamma$ = phospho-Tyr	
$\Xi$ = monomethyl-Arg	$\Lambda$ = sym dimethyl-Arg	$\Psi$ = asym dimethyl-Arg	$\hat{C}$ = citrulline
Spacer = aminohexanoic acid, Ahx		Ac- = N-terminal acetylation	