

Supplementary Figure 1

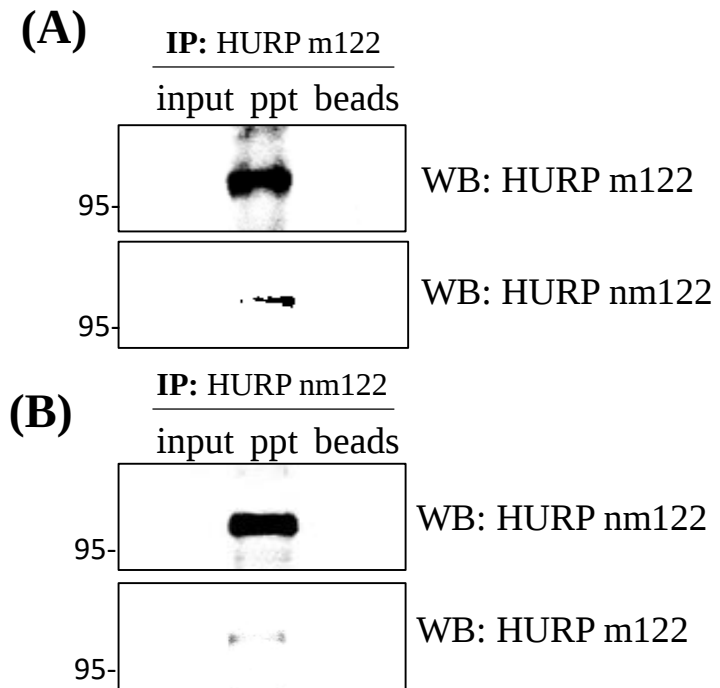
	a.a. site					
PRMT5's substrates	-3	-2	-1	0	1	Ref
SPT5 R698	S	R	G	R	G	a
p53 R333	L	Q	I	R	G	b
p53 R335	I	R	G	R	E	b
p53 R337	G	R	E	R	F	b
CBP-1 R234	P	M	G	R	G	c
ASH2L R296	G	K	G	R	G	d
PDCD4 R110	G	K	G	R	G	e
HoxA R140	S	A	R	R	G	f
NF- κ B R30	P	K	Q	R	G	g
E2F1 R109	G	P	A	R	G	h
E2F1 R111	A	R	G	R	G	h
E2F1 R113	G	R	G	R	H	h
GM130 R6	E	E	T	R	Q	i
GM130 R18	K	K	L	R	E	i
GM130 R23	Y	Q	Q	R	N	i
RPS10 R158	G	F	G	R	G	j
RPS10 R160	G	R	G	R	G	j
FCP1 R913	A	G	G	R	G	k
FCP1 R916	R	G	P	R	G	k
FEN1 R19	S	A	I	R	E	l
FEN1 R100	L	A	K	R	S	l
FEN1 R104	S	E	R	R	A	l
FEN1 R192	V	L	M	R	H	l
RAD9 R172	G	I	G	R	G	m
RAD9 R174	G	R	G	R	R	m
RAD9 R175	R	G	R	R	V	m
Consensus	NAI	X	NAI	R	NAI	
Frequency	58%		65%		62%	

Nonpolar aliphatic	GAVLMI
Aromatic	FYW
Polar uncharged	STCPNQ
Positive charged	KRH
Negative charged	DE

[illegible]

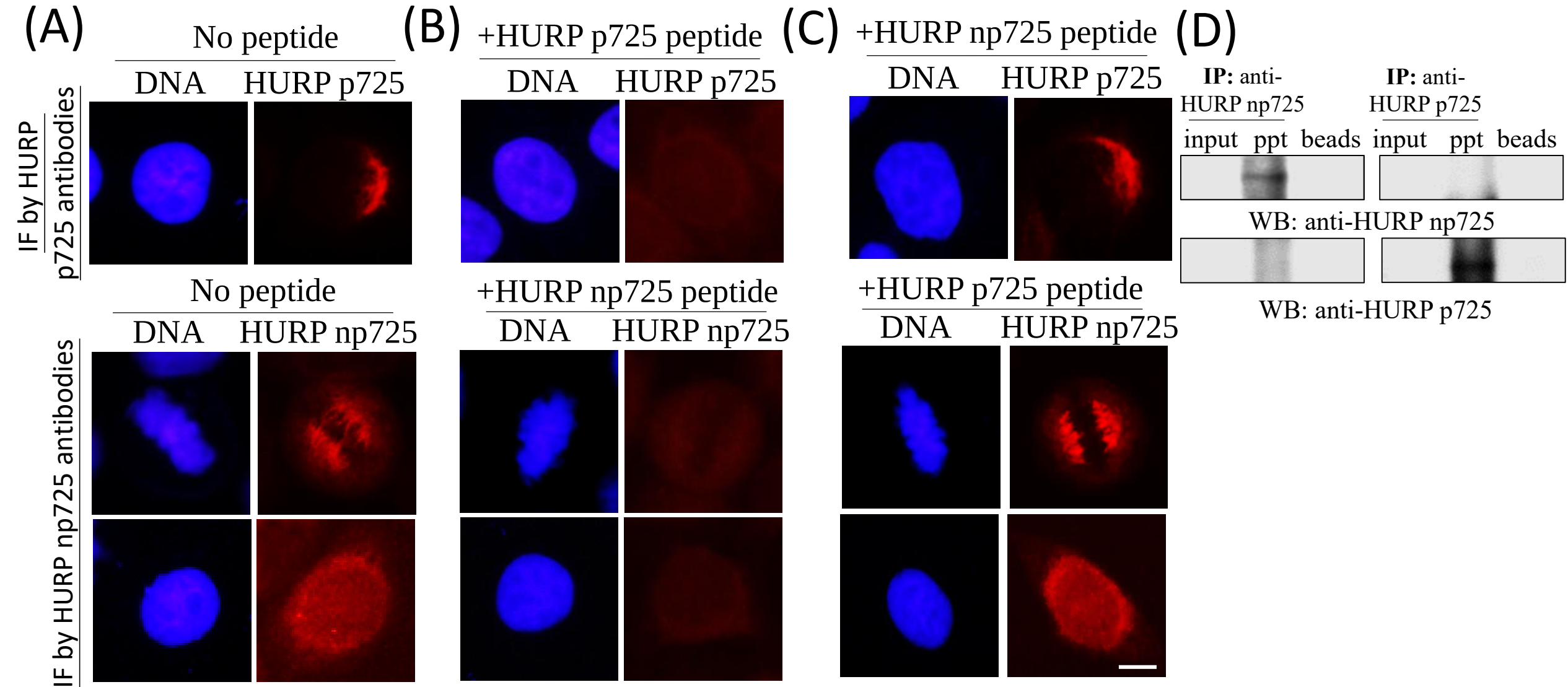
Supplementary Figure 1. Deduction of PRMT5-dependent methylation determinant sequence. 26 PRMT5's substrates with protein sequences centered at the methylation residue R were aligned and the consensus sequence was deduced with the showing up frequency (possibility) among the 26 sequences.

Supplementary Figure 2

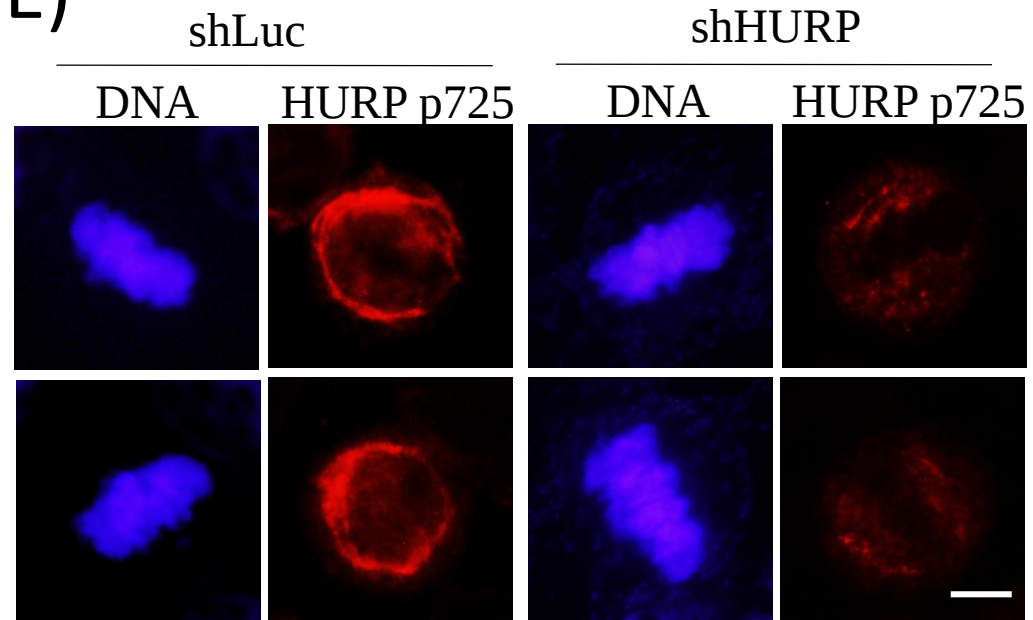


Supplementary Figure 2. The HURP m122 antibodies and nm122 antibodies almost did not cross react. Immunoprecipitations employing antibodies against HURP m122 (A) or nm122 (B) were performed, followed by Western blots using antibodies against HURP m122 or HURP nm122. Very limited amount of the immunoprecipitated HURP m122 was detected by nm122 antibodies, similarly, the immunoprecipitated nm122 almost could not be recognized by m122 antibodies.

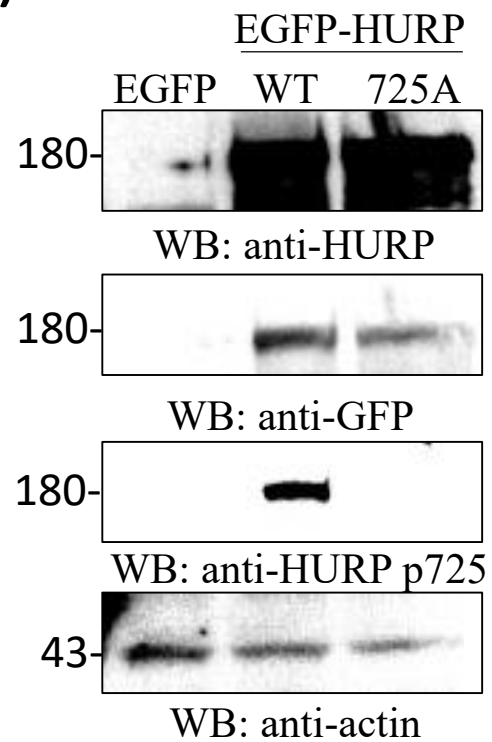
Supplementary Figure 3



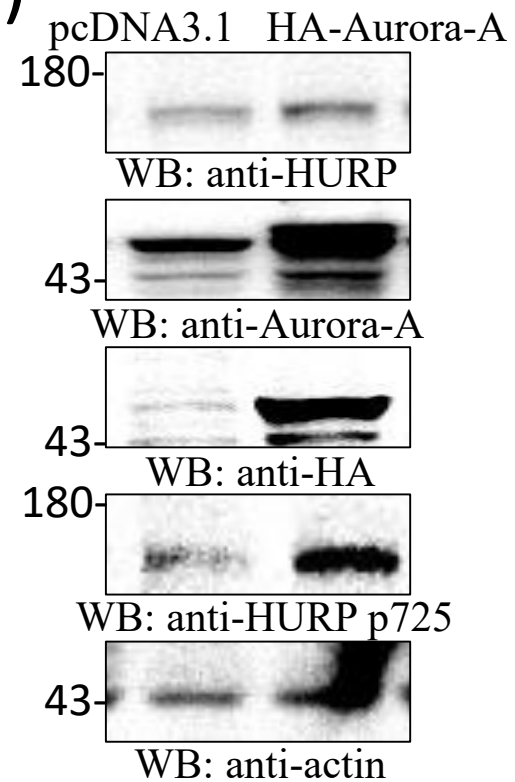
(E)



(F)



(G)



Supplementary Figure 3. Antibody specificity of HURP p725 and np725. (A) Immunofluorescence (IF) was performed adopting antibodies against HURP p725 or np725. (B) The antibodies against HURP p725 or np725 were incubated with corresponding antigenic peptides first, and then applied to immunofluorescence. (C) HURP p725 antibodies were incubated with the peptide without phosphorylation at S725. Similarly, HURP np725 antibodies were incubated with the peptide containing phosphorylation at S725. Subsequently, those antibodies were applied to immunofluorescence. (D) Immunoprecipitations adopting antibodies against HURP p725 or np725 were performed first, Western blot employing antibodies against HURP p725 or np725 were then followed. (E) Immunofluorescence adopting HURP p725 antibodies was performed in shLuc or shHURP HeLa cells. (F) HURP p725 antibodies could not recognize HURP 725A. HEK293 harboring EGFP-HURP WT or 725A were applied to Western blot adopting antibodies against HURP p725. (G) Overexpression of Aurora-A increased the level of HURP p725. HEK293 cells harboring pcDNA3.1 or HA-Aurora-A were subjected to Western blots detecting the level of HURP p725.