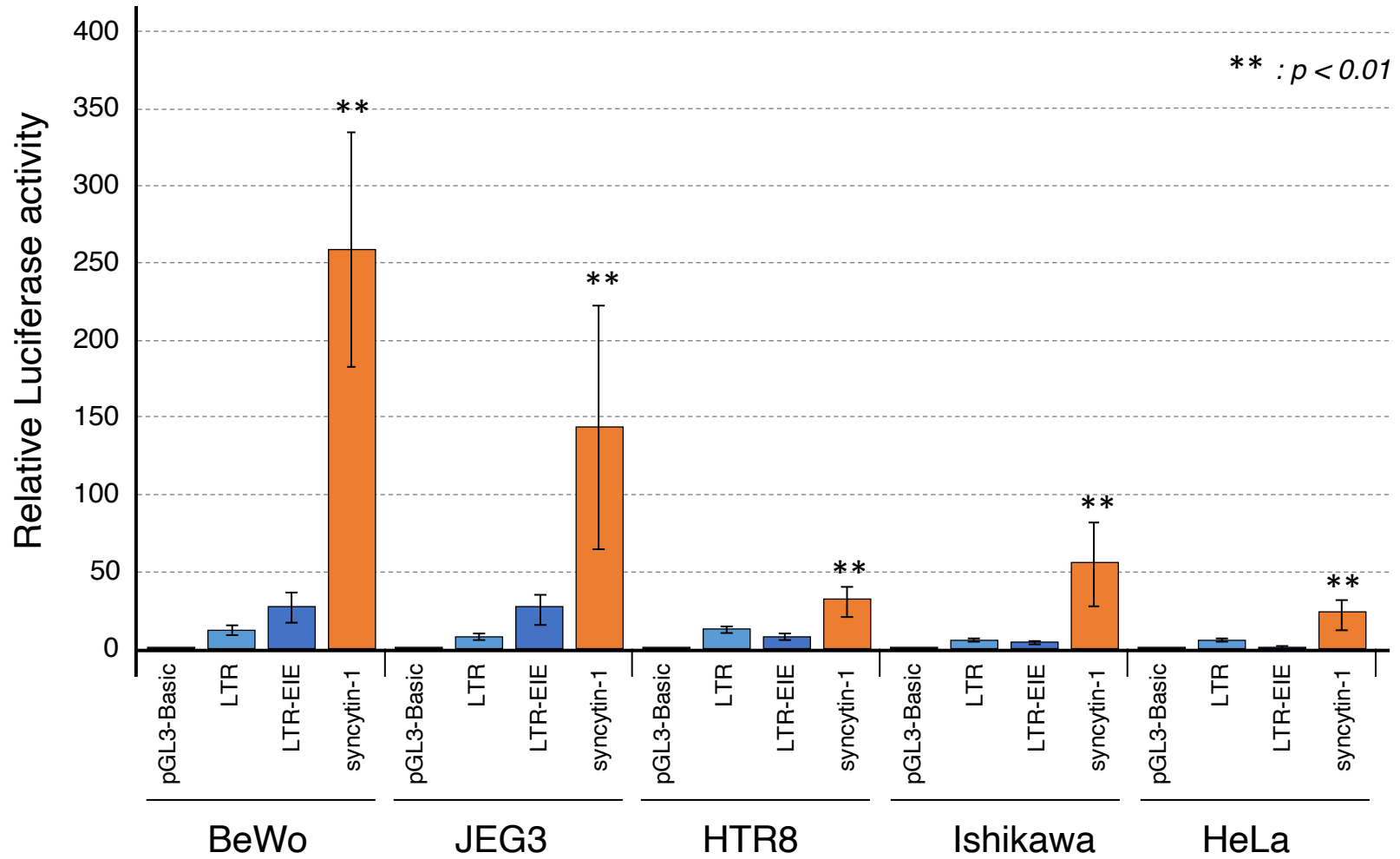
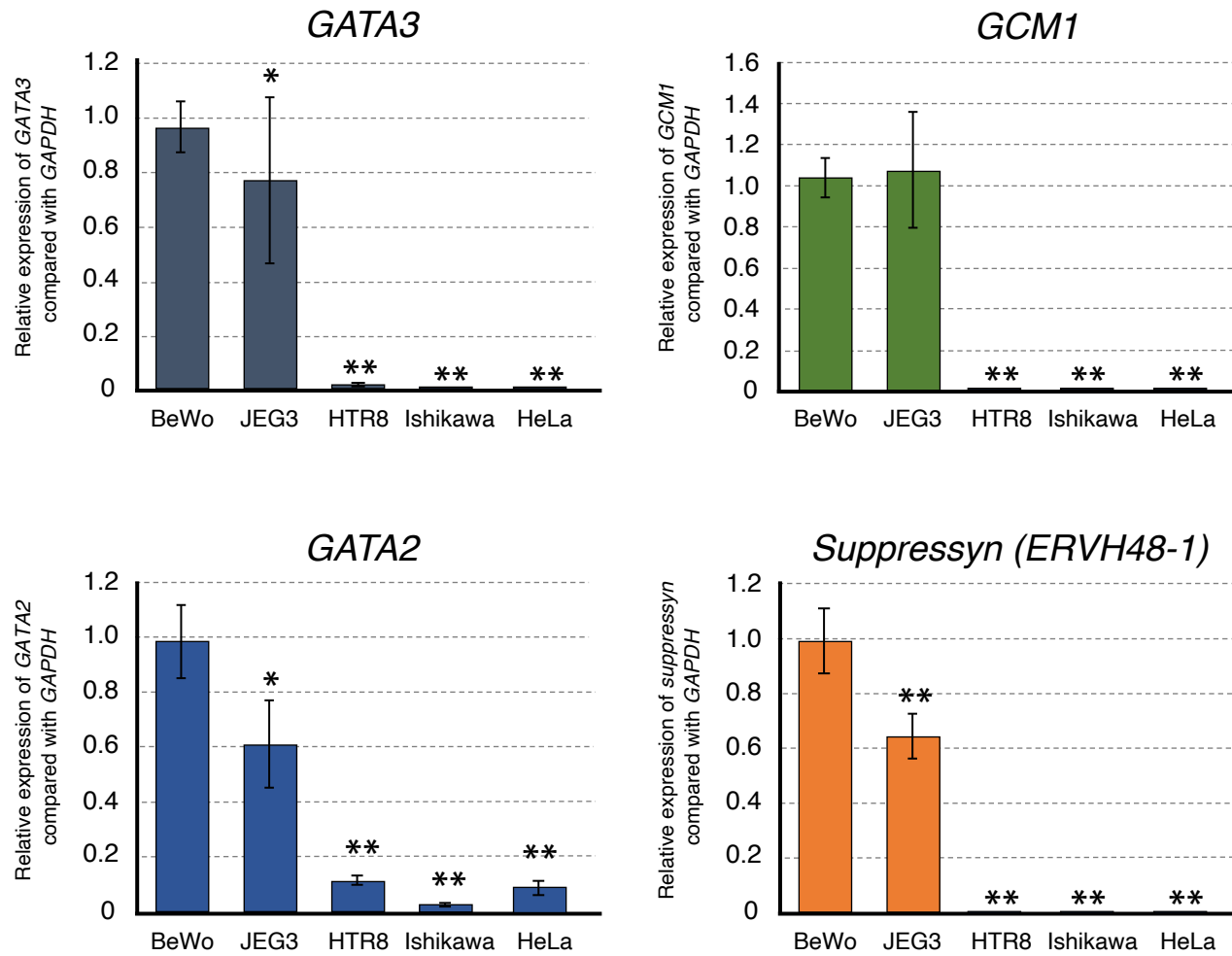


Supplementary Figure S1

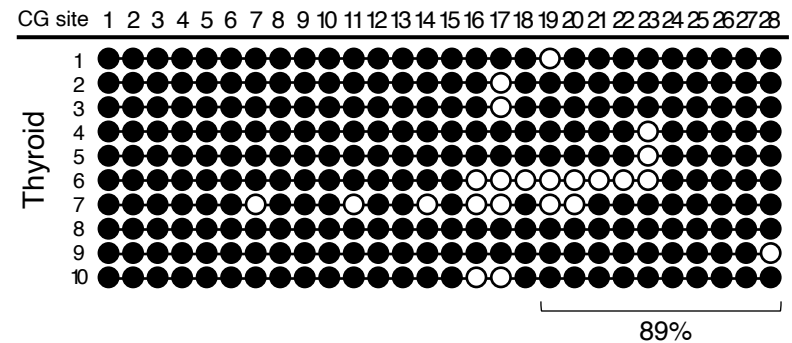
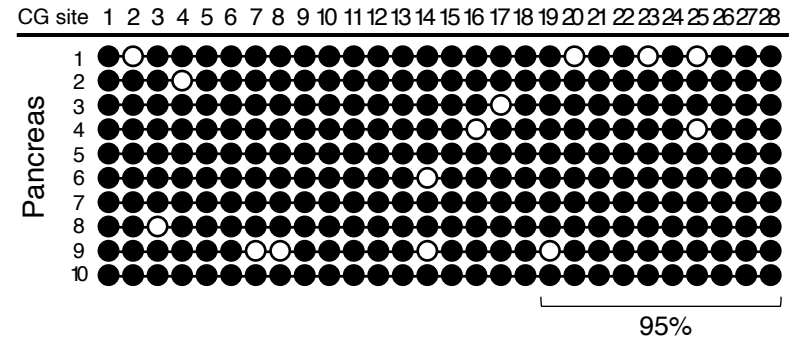
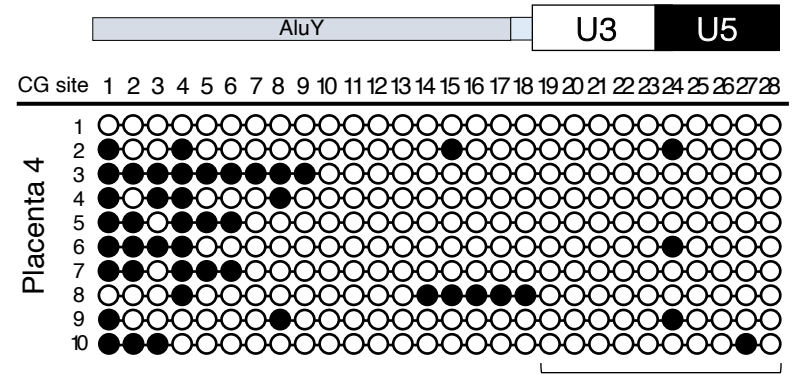
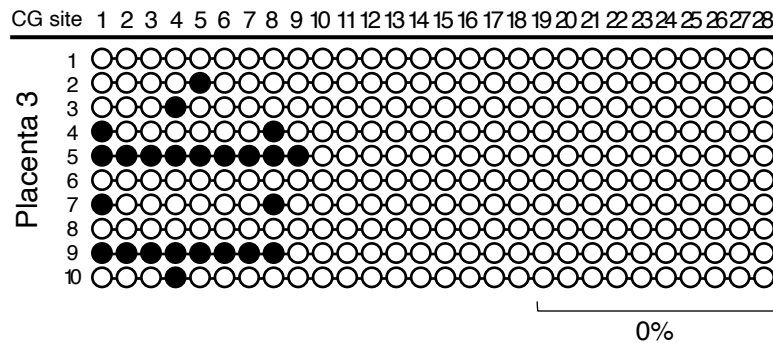
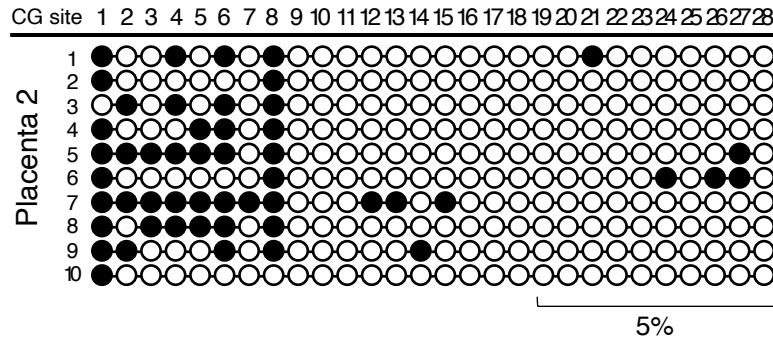
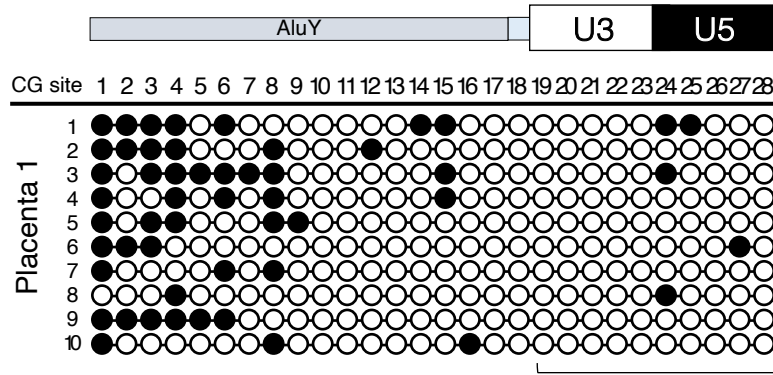


Supplementary Figure S2



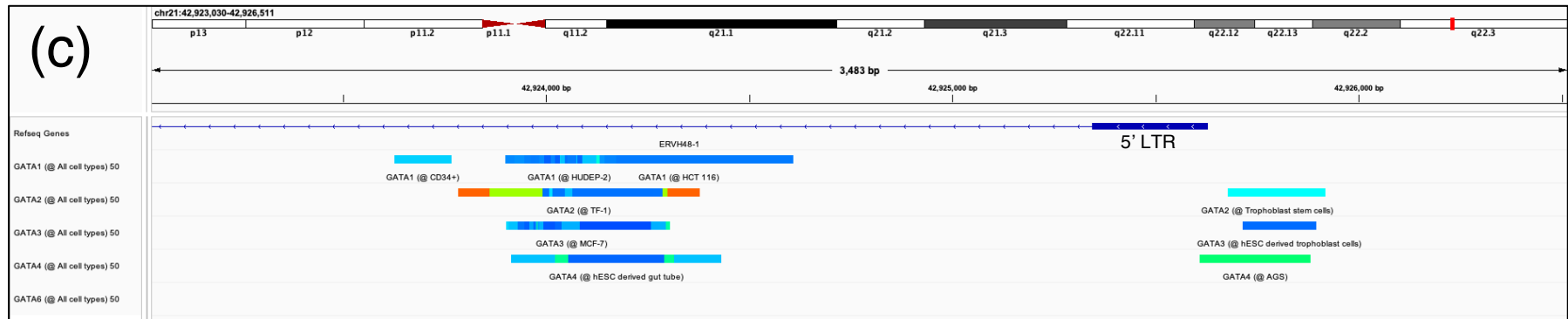
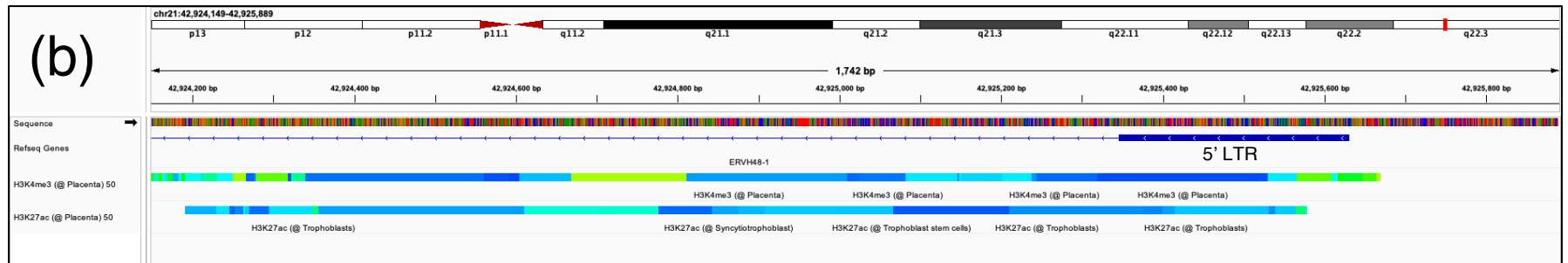
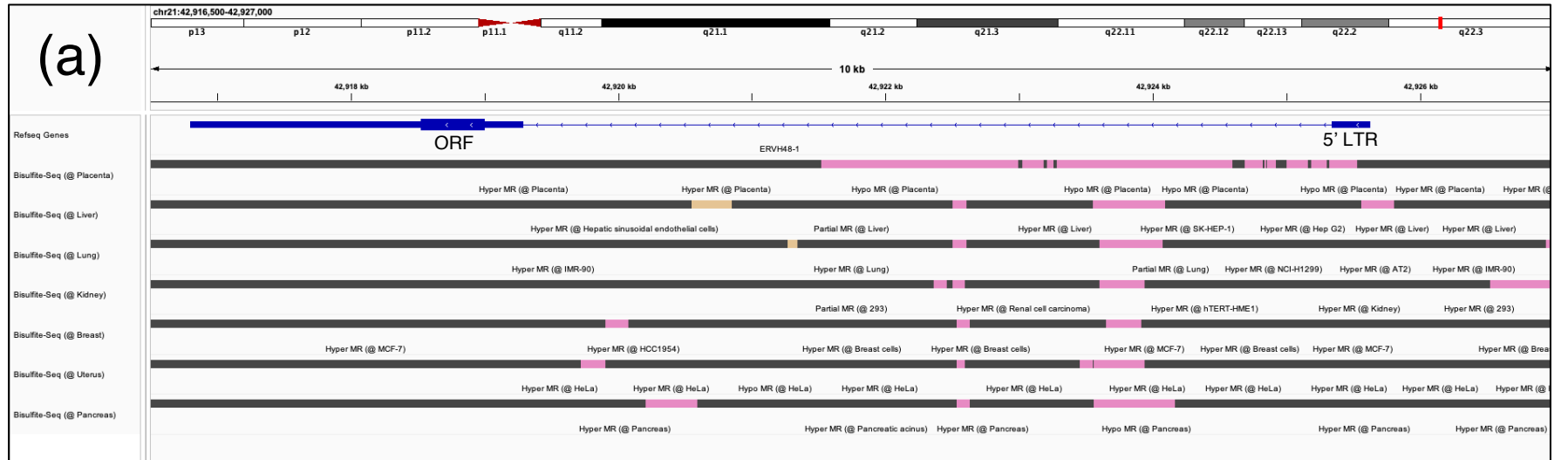
* : $p < 0.05$ ** : $p < 0.01$

Supplementary Figure S3

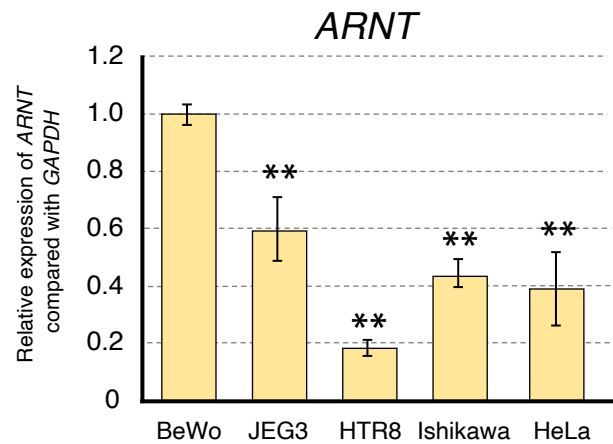
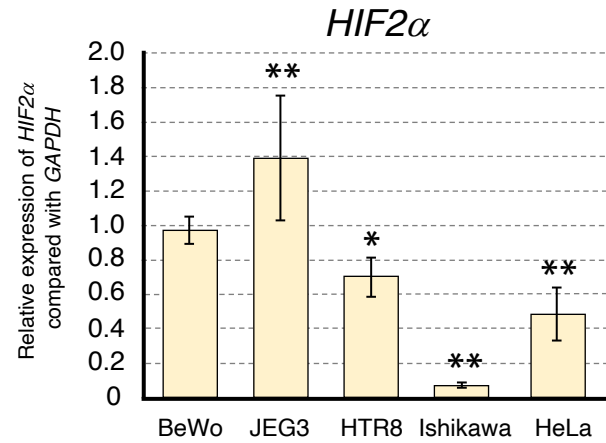
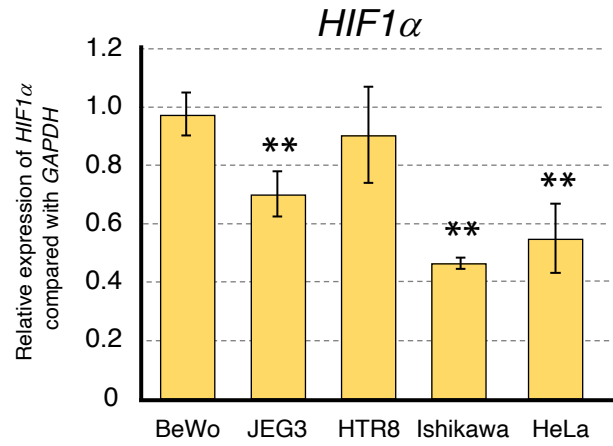


○ Un-methylated
● methylated

Supplementary Figure S4



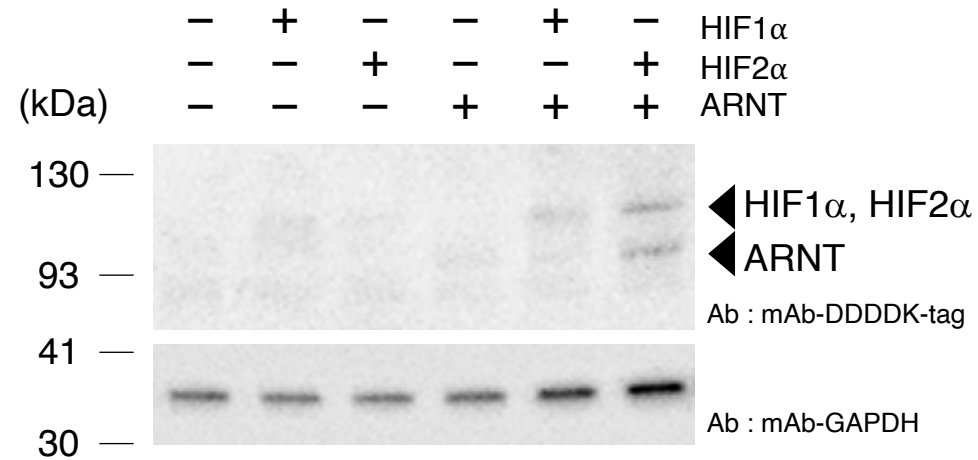
Supplementary Figure S5



* : $p < 0.05$ ** : $p < 0.01$

Supplementary Figure S6

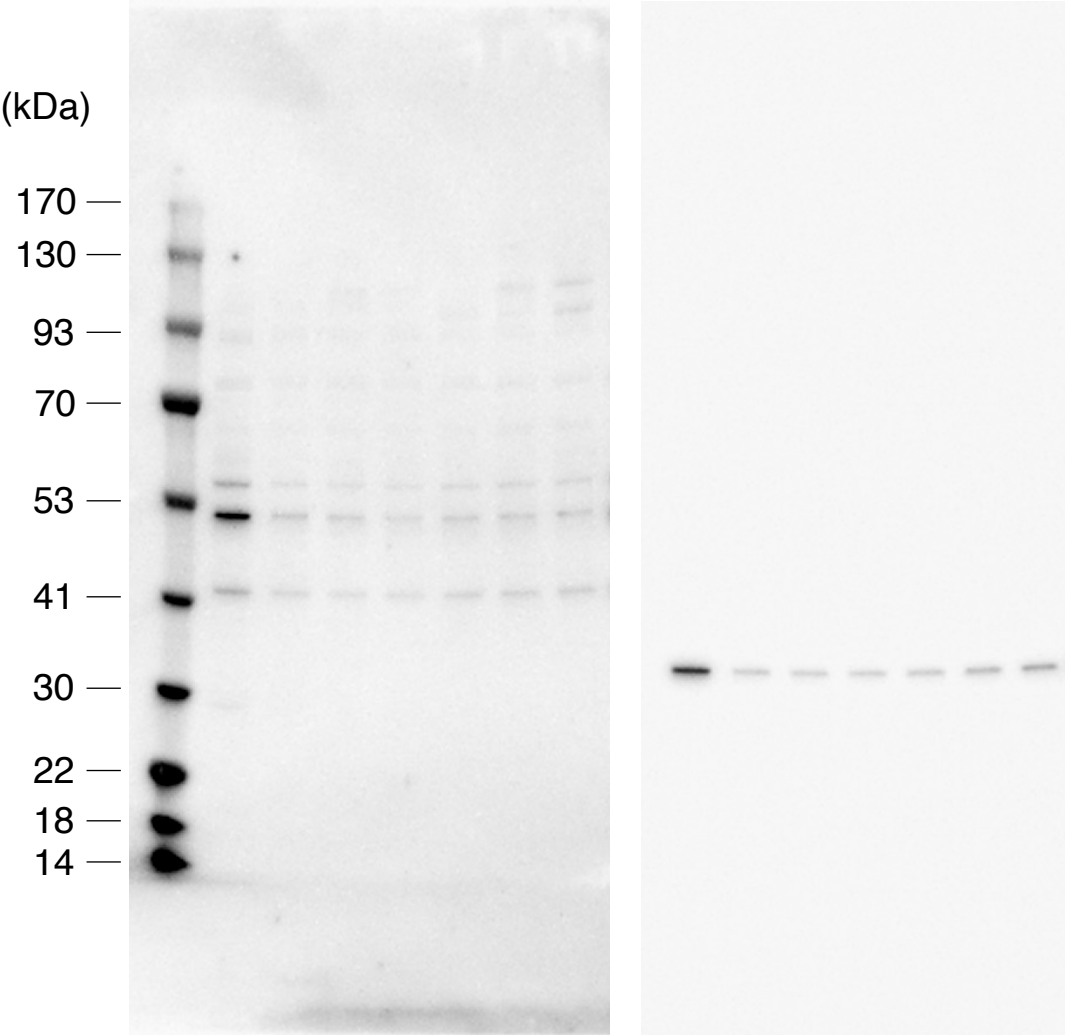
BeWo cells



Supplementary Figure S7

BeWo cells

HIF1α	-	+	-	-	+	-	HIF1α	-	+	-	-	+	-
HIF2α	-	-	+	-	-	+	HIF2α	-	-	+	-	-	+
ARNT	-	-	-	+	+	+	ARNT	-	-	-	+	+	+



Ab : mAb-D4DDDK-tag

Ab : mAb-GAPDH

Supplementary Table S1

	Gene	Primer ID	sequence (5' - 3')
qPCR	<i>suppressyn</i> (<i>ERVH48-1</i>)	SUPYN-S SUPYN-AS	GAAGCTCCTCAGCCTCTAGT GGGTCAGTTTGGCCGATAAA
	<i>ARNT</i>	ARNT-S ARNT-AS	GGAATGGACTTGGCTCTGTAA GTCATCATCTGGGAGGGAAAC
	<i>GCM1</i>	GCM-S GCM-AS	AGAAGCTGAGGCAAGAAGAG GACTTTGTGTTTCACCTGGAAG
	<i>HIF1α</i>	HIF1a-S HIF1a-AS	CAGACGATCATGCAGCTACTAC CCCAGCAGTCTACATGCTAAAT
	<i>HIF2α</i>	HIF2a-S HIF2a-AS	CGCCATCATCTCTCTGGATT GCTGTGGCTCCTCAACTC
	<i>GATA2</i>	GATA2-S GATA2-AS	CCTCTACTACAAGCTGCACAAT TCTTGCTCTTCTTGACTTGTT
	<i>GATA3</i>	GATA3-S GATA3-AS	GAAGTGTGAGACCACCACAA GCCTTCCTTCTTCATAGTCAGG
Mutagenesis	<i>HIF</i>	LTR-HIFmg-S LTR-HIFmg-AS	TAGCAGTCAGGCTGGGACAATTCT CCAGCCTGACTGCTATGTAGTACGCG
Bisulfite sequencing	<i>suppressyn</i> (<i>ERVH48-1</i>)	BS-supyn-S BS-supyn-AS	GGATGTGGAAAATTTGAGATAGG AAAACCAACCCCAAACTCTTAC
Gene cloning	<i>HIF1α</i>	HIF1a-1st-S HIF1a-1st-AS HIF1a-2nd-EcoRV-S HIF1a-2nd-BamHI-AS	ACTTGCCTTTCTTCTCTCTC GCTGTCTGTGATCCAGCATT CGGATATCACCGATTACCATGGAGGGCGC CGGATCCGGCCAGTTAACTTGATCCAAAG
		HIF2a-1st-S HIF2a-1st-AS HIF2a-2nd-EcoRV-S HIF2a-2nd-BamHI-AS	GTTCTCCAGTCACCTTTC GCTGGCGTTAGAAATACCTAGT GGATATCGTGCTCGGCGTCTGAAC CGGATCCGGCCAGGTGGCCTGGTCCAG
	<i>ARNT</i>	ARNT-1st-S ARNT-1st-AS ARNT-2nd-EcoRV-S ARNT-2nd-BamHI-AS	GTGGCGCGGCGGCGGTGGCATCTGCGGCC CACACTCTCTCACTTACTC GGATATCGGCGGTGGCATCTGCGGCCATGG CGGATCCGGGTATTCTGAAAAGGGGGGAA
	<i>suppressyn</i> (<i>ERVH48-1</i>)	Pro-SUPYN-1st-S (EIE-1st-S) Pro-SUPYN-1st-AS (5Enh-1st-AS) Alu-LTR-2nd-Kpn-S MER-LTR-2nd-kpn-S LTR-2nd-kpn-S LTR-2nd-Xho-AS EIE-1st-AS EIE-2nd-XhoI-AS 5Enh-1st-S 5Enh-2nd-KpnI-S	GTGCGGATGTGAAAATCTGAGA TCGCAGGTTTCAGGGCCAGCCCA GGGTACCGAGATGGAGGCTCGTCTGTCTG GGGTACCGAGACAGGTCTCTTGTTAATTTA GGGTACCTGAAAGATTCTCCAGGGGCCTG GCTCGAGAAGGCTCTTGCAATTGGTTGG GCTGGGTCTAGGTTGGTATATTT ACGCCTCGAGGTCAGGACCTTGGGTGATTT CATTGGCTGAGAGGTGTCTT GGGTACCGCCGTCCCCAGCTTGTC
		<i>syncytin-1</i> Syn1-KpnI-S Syn1-BglII-AS	AAGGTACCTATGTATTACCATAATTAGGCAGC AAAGATCTAATAGAGTGAAATAGCATGAAAACAGC