

Table S9. The quantification results of histone PTMs related enzymes in different fractions in MCF-7 cells under estradiol stimulation

Gene names	Protein names	Ratio E2+\E2-	Fraction
ACAT1	Acetyl-CoA acetyltransferase, mitochondrial	0.61755	A
CARM1	Histone-arginine methyltransferase CARM1	0.61577	A
GALNT2	Polypeptide N-acetylgalactosaminyltransferase 2; Polypeptide N-acetylgalactosaminyltransferase 2 soluble form	0.69286	A
GALNT6	Polypeptide N-acetylgalactosaminyltransferase 6	1.9085	A
HAT1	Histone acetyltransferase type B catalytic subunit	1.4559	A
HDAC1;HDAC2	Histone deacetylase 1;Histone deacetylase 2	0.60503	A

KDM2A	Lysine-specific demethylase 2A	1.1422	A
KDM5A	Lysine-specific demethylase 5A	1.0368	A
METTL7A	Methyltransferase-like protein 7A	0.47642	A
NAA15	N-alpha-acetyltransferase 15, NatA auxiliary subunit	0.8973	A
NAA30	N-alpha-acetyltransferase 30	2.3746	A
NAA50	N-alpha-acetyltransferase 50	0.79362	A
PRMT1	Protein arginine N-methyltransferase 1	1.0011	A
PRMT5	Protein arginine N-methyltransferase 5;Protein arginine N-methyltransferase 5, N-terminally processed	1.0128	A

EHMT2	Histone-lysine N-methyltransferase EHMT2	1.0615	B
GALNT2	Polypeptide N-acetylgalactosaminyltransferase	1.1344	B
HDAC1	Histone deacetylase 1	1.2058	B
HDAC2	Histone deacetylase 2	1.7544	B
KAT7	Histone acetyltransferase KAT7	0.67155	B
KDM1A	Lysine-specific histone demethylase 1A	1.5044	B
NAT10	N-acetyltransferase 10	0.8439	B
PHF2;PHF8	Lysine-specific demethylase PHF2;Histone lysine demethylase PHF8	0.90412	B

PRMT1	Protein arginine N-methyltransferase 1	0.84721	B
PRMT5	Protein arginine N-methyltransferase 5	1.2258	B
SAP18	Histone deacetylase complex subunit SAP18	0.64229	B
KDM1A	Lysine-specific histone demethylase 1A	1.5918	C
SAP18	Histone deacetylase complex subunit SAP18	1.0866	C
