

Supplementary information, Table S7. Information for antibodies used in this study.

Antibodies	Source	Identifier
Rabbit anti-human/mouse ZNF689	Proteintech	Cat# 25573-1-AP; RRID: AB_2880134
Rabbit anti-human ZNF689	GeneTex	Cat# GTX122872; RRID: AB_11170718
Rabbit anti-human TRIM28	Proteintech	Cat# 15202-1-AP; RRID: AB_2209890
Rabbit anti-human TRIM28	Abcam	Cat# ab10483; RRID: AB_297222
Rabbit anti-human LINE-1 ORF1p	Abcam	Cat# ab245249; RRID: AB_2941773
Chicken anti-human LINE-1 ORF2p	Abcam	Cat# ab106004; RRID: AB_10904169
Rabbit anti-mouse LINE-1 ORF1p	Abcam	Cat# ab216324; RRID: AB_2921327
Rabbit anti-mouse LINE-1 ORF2p	Rockland	Cat# 600-401-GT3; RRID: N/A
Rabbit anti-human SETDB1	Proteintech	Cat# 11231-1-AP; RRID: AB_2186069
Rabbit anti-human DNMT3A	ABclonal	Cat# A2065; RRID: AB_2764088
Rabbit anti-human HP1 α	ABclonal	Cat# A12592; RRID: AB_2759434
Rabbit anti-human HP1 γ	ABclonal	Cat# A2248; RRID: AB_2862981
Rabbit anti-human SUV39H1	Proteintech	Cat# 10574-1-AP; RRID: AB_2196710
Rabbit anti-human H3K9me3	Abcam	Cat# ab8898; RRID: AB_306848
Mouse anti-human CD8 α	Cell Signaling Technology	Cat# 70306S; RRID: AB_2799781
Rabbit anti-human HLA class I ABC	Proteintech	Cat# 15240-1-AP; RRID: AB_1557426
Rabbit anti-human B2M	Proteintech	Cat# 13511-1-AP; RRID: AB_2062735
Rabbit anti-human TAP1	Proteintech	Cat# 11114-1-AP; RRID: AB_2200201
Rabbit anti-human PSMB9	Proteintech	Cat# 14544-1-AP; RRID: AB_2268925
Rabbit anti-human/mouse p-Histone H2A.XS139	Abcam	Cat# ab22551; RRID: AB_447150
Rabbit anti-human H2AX	Cell Signaling Technology	Cat# 7631; RRID: AB_10860771
Rabbit anti-human/mouse histone H3	Cell Signaling Technology	Cat# 4499; RRID: AB_10544537
Mouse anti-Flag tag	Sigma-Aldrich	Cat# F3165; RRID: AB_259529

Rabbit anti-Flag tag	Cell Signaling Technology	Cat# 14793; RRID: AB_2572291
Mouse anti-Myc tag	Cell Signaling Technology	Cat# 2276; RRID: AB_331783
Rabbit anti-Gst tag	Proteintech	Cat# 10000-0-AP; RRID: AB_11042316
Mouse anti-His tag	Proteintech	Cat# 66005-1-Ig; RRID: AB_11232599
Mouse anti-human/mouse GAPDH	Proteintech	Cat# 60004-1-Ig; RRID: AB_2107436
Mouse anti-human alpha tubulin	Proteintech	Cat# 66031-1-Ig; RRID: AB_11042766
Normal rabbit IgG	ABclonal	Catalog# AC005; RRID: AB_2771930
Normal mouse IgG	ABclonal	Catalog# AC011; RRID: AB_2770414
HRP Rabbit anti-Chicken IgY (IgG) (H+L)	ABclonal	Catalog# AS030; RRID: AB_2769858
Peroxidase-AffiniPure Goat anti-Rabbit IgG (H+L)	Jackson	Catalog# 111-035-003; RRID: AB_2313567
Peroxidase-AffiniPure Goat Anti-Mouse IgG (H+L)	Jackson	Catalog# 115-035-003; RRID: AB_10015289
HRP AffiniPure Mouse Anti-Rabbit IgG Light Chain	ABclonal	Cat# AS061; RRID: AB_2864055
HRP AffiniPure Goat Anti-Mouse IgG Light Chain	ABclonal	Cat# AS062; RRID: AB_2864056
APC/Cyanine7 anti-mouse CD45	BioLegend	Cat# 103116; RRID: AB_312981
PerCP/Cyanine5.5 anti-mouse CD3e	BioLegend	Cat# 100328; RRID: AB_893318
Alexa Fluor® 700 anti-mouse CD4	BioLegend	Cat# 100536; RRID: AB_493701
FITC anti-mouse CD8a	BioLegend	Cat# 100706; RRID: AB_312745
PE/Cyanine7 anti-human/mouse Granzyme B	BioLegend	Cat# 372214; RRID: AB_2728381
APC anti-mouse IFN- γ	BioLegend	Cat# 505810; RRID: AB_315404
FITC anti-mouse IFN- γ	BioLegend	Cat# 505806; RRID: AB_315400
PE anti-mouse CD137	BioLegend	Cat# 106106; RRID: AB_2287565
FITC anti-mouse H-2K ^d /H-2D ^d	BioLegend	Cat# 114706; RRID: AB_313605
APC anti-mouse H-2K ^b bound to SIINFEKL	BioLegend	Cat# 141606; RRID: AB_11219595
<i>InVivoPlus</i> anti-mouse PD-1	BioXCell	Cat# BP0273; RRID: AB_2687796
<i>InVivoPlus</i> rat IgG2a isotype control	BioXCell	Cat# BP0089; RRID: AB_1107769
FITC anti-human ICOS	BioLegend	Cat# 313505; RRID: AB_416329

PE anti-human CD137	BioLegend	Cat# 309803; RRID: AB_314782
APC anti-human CD25	BioLegend	Cat# 302609; RRID: AB_314279
Nivolumab (anti-PD-1)	Selleck	Cat# A2002; RRID: AB_2810223
