

Supplementary Table 2. Reagent list

Reagent	Source	Identifier
Antibodies		
Brilliant Violet 785™ anti-human CD154	BioLegend	Cat#310842,RRID:AB_2572187 1:100
Brilliant Violet 510™ anti-human CD69 Antibody	BioLegend	Cat#310936,RRID:AB_2563834 1:100
Brilliant Violet 421™ anti-human CD3 Antibody	BioLegend	Cat#344834,RRID:AB_2565675 1:100
PE/Cyanine7 anti-human CD4 Antibody	BioLegend	Cat#357410,RRID:AB_2565662 1:100
Brilliant Violet 650™ anti-human CD8 Antibody	BioLegend	Cat#344730,RRID:AB_2564510 1:100
APC/Cyanine7 anti-human CD45RA Antibody	BioLegend	Cat#304128,RRID:AB_10708880 1:100
FITC anti-human CD45RO Antibody	BioLegend	Cat#304242,RRID:AB_2564159 1:100
PerCP/Cyanine5.5 anti-human CD38 Antibody	BioLegend	Cat#356614,RRID:AB_2562183 1:100
Brilliant Violet 711™ anti-human CD163 Antibody	BioLegend	Cat#333630,RRID:AB_2650972 1:100
PE/Cyanine7 anti-human CD45 Antibody	BioLegend	Cat#368532,RRID:AB_2715892 1:100

Brilliant Violet 711™ anti-human CD4 Antibody	BioLegend	Cat#317439,RRID:AB_11219404 1:100
Pacific Blue™ anti-human HLA-DR Antibody	BioLegend	Cat#307624, RRID:AB_493665 1:100
APC anti-human CD206 (MMR) Antibody	BioLegend	Cat#321110, RRID:AB_571885 1:100
PE anti-human CD155 (PVR) Antibody	BioLegend	Cat# 337610, RRID:AB_2174019 1:100
Biotin Anti-Human CD154	BioLegend	Cat#317439,RRID:AB_492966 1:100
CD40 Monoclonal Antibody (5C3), eBioscience™	Thermo Fisher Scientific	Cat#14-0409-82,RRID:AB_467232 1µg/ml
CD155 Monoclonal Antibody (D171)	Thermo Fisher Scientific	Cat#MA5-13493, RRID:AB_10978147 1:200
CD68 Monoclonal Antibody (KP1)	Thermo Fisher Scientific	Cat#MA5-13324, RRID:AB_10987212. 1:200
CD96 Polyclonal Antibody	Thermo Fisher Scientific	Cat#PA5-97568, RRID:AB_2812183 1:100
TIGIT (E5Y1W) XP® Rabbit mAb	Cell Signaling Technology	Cat#99567S 1:100
METTL3 (E3F2A) Rabbit mAb	Cell Signaling Technology	Cat#86132S, RRID:AB_2800072 1:500 (WB); 1:80(Flow);1:200(IF)
Goat anti-rabbit IgG (H+L), Alexa Fluor 488	Thermo Fisher Scientific	Cat#A-11008, RRID:AB_143165 1:200

Goat anti-mouse IgG (H+L), Alexa Fluor 594	Thermo Fisher Scientific	Cat#A-11032, RRID:AB_2534091 1:200
Goat anti-Rabbit IgG (H+L) Secondary Antibody, FITC	Thermo Fisher Scientific	Cat#A-31635, RRID:AB_429708 1:200
Mouse monoclonal anti- β -Actin	Cell Signaling Technology	Cat#3700S, RRID:AB_2242334 1:5000
Proteins		
SARS-CoV-2 (2019-nCoV) Nucleocapsid-His recombinant Protein	Sino Biological	Cat#:40588-V08B-100
SARS-CoV-2 (2019-nCoV) Spike S1+S2 ECD-His	Sino Biological	Cat#:40589-V08H4-100
Epstein-Barr virus (Herpesvirus 4) EBV Glycoprotein gp350 / EBV GP350 Protein	Sino Biological	Cat#:40373-V08B
Plamid		
pMIR-REPORT™ miRNA Expression Reporter Vector System	Thermo Fisher Scientific	Cat#: AM5795
Oligo and DNA		
CD155 siRNA	Santa Cruz Biotechnology	Cat#:sc-61903
METTL3 siRNA	Santa Cruz Biotechnology	Cat#: sc-92172
METTL3 cDNA ORF clone, Homo sapiens (human)	GenScript	OHu70047
Chemicals		
Lymphoprep	Cosmo Bio	Cat#AXS-1115758

Anti-CD3/CD28 beads	Life Technologies	Cat#11132D
Brefeldin A Solution	BioLegend	Cat#420601
DAPI	Cayman	Cat#14285
RPMI 1640 Medium	Thermo Fisher Scientific	Cat#11875135
4-15% SDS-PAGE	Bio-Rad	Cat#4561083
PVDF membranes	Bio-Rad	Cat#1620177
TBST	Cell Signaling Technology	Cat#9997S
PBS	Boston BioProducts	Cat#BM-220
Tris-Glycine-SDS Running Buffer (10X)	Boston BioProducts	Cat#NBP-150
Tris-Glycine Transfer Buffer (10X)	Cell Signaling Technology	Cat#12539S
SuperSignal West Femto Maximum Sensitivity Substrate	Thermo Fisher Scientific	Cat#34094
Direct-zol RNA MiniPrep	Genesee Scientific	Cat#11-331
High-Capacity cDNA Reverse Transcription Kit	Thermo Fisher Scientific	Cat#4368813
2x SYBR Green qPCR Master Mix	Bimake	Cat#B21203
Actinomycin D, from Streptomyces sp., ~98% (HPLC)	Sigma-Aldrich	Cat#A1410-2MG
3-Deazaadenosine	Sigma-Aldrich	Cat#D8296-5MG
ox-LDL	Thermo Fisher Scientific	Cat#L34357, 50µg/ml
LDL, human	Sigma-Aldrich	Cat#LP2-2MG, 100µg/ml
Uric Acid	Sigma-Aldrich	Cat# U0881-10G, 10mM
β-glucan	EMD Millipore	Cat#346210-25MG, 1µM

Recombinant Human HMGB1 (carrier-free) 25 µg	Biolegend	Cat#557804, 100ng/ml
Palmitic acid	Sigma-Aldrich	Cat#P0500-10G,0.5mM
Lipoic acid	Sigma-Aldrich	Cat#T1395-1G,1mM
Glucose Solution	Thermo Fisher Scientific	Cat#A249400, 50mM
Bst DNA Polymerase, Large Fragment	New England Biolabs	Cat#M0275S
M-MLV Reverse Transcriptase	Thermo Fisher Scientific	Cat# 28025013
NEBNext® High-Fidelity 2X PCR Master Mix	New England Biolabs	Cat#M0541S
ClonExpress II One Step Cloning Kit	Cellagen Technology	Cat#C112-02
One Shot TOP10 Chemically Competent E. coli (TOP 10)	Thermo Fisher Scientific	Cat#C404003
T4 DNA Ligase	New England Biolabs	Cat# M0202S
Assay		
IFNγ High Sensitivity Human ELISA Kit (ab46048)	Abcam	Cat#ab46048
EpiQuik CUT&RUN m6A RNA Enrichment (MeRIP) Kit	Epigentek	Cat#P-9018-24
EasySep™ Human Monocyte Isolation Kit	STEMCELL Technologies	Cat#19359
EasySep™ Human Biotin Positive Selection Kit II	STEMCELL Technologies	Cat#17663
EasySep™ Human Naïve CD4+ T Cell Isolation Kit II	STEMCELL Technologies	Cat#17555

EasySep™ Human Memory CD4+ T Cell Enrichment Kit	STEMCELL Technologies	Cat#19157
Dual-Luciferase® Reporter Assay System	Promega	Cat#E1910
Software		
Flowjo	BD	https://www.flowjo.com/
ImageJ	NIH	https://imagej.nih.gov/ij/
GraphPad Prism	GraphPad Software	https://www.graphpad.com/scientific-software/prism/