

Analysis of HBV-Specific CD4 T-cell Responses and Identification of HLA-DR-Restricted CD4 T-Cell Epitopes Based on a Peptide Matrix

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Materials

Name	Company	Catalog Number	Comments
Albumin Bovine V (BSA)	Beyotime	ST023	
APC-conjugated Anti-human TNF- α	eBioscience	17-7349-82	Keep protected from light
Benzonase Nuclease	Sigma-Aldrich	E1014	Limit cell clumping
B lymphoblastoid cell lines (BLCLs)	FRED HUTCHINSON CANCER RESEARCH CENTER	IHW09126	HLA-DRB1*0803 homozygote
B lymphoblastoid cell lines (BLCLs)	FRED HUTCHINSON CANCER RESEARCH CENTER	IHW09121	HLA-DRB1*1202 homozygote
Cell Culture Flask (T75)	Corning	430641	
Cell Culture Plate (96-well, flat bottom)	Corning	3599	Flat bottom
Cell Culture Plate (96-well, round bottom)	Corning	3799	Round bottom
Cell Strainer	Corning	CLS431751	Pore size 70 μ m, white, sterile
Centrifuge Tube (15 mL)	KIRGEN	KG2611	Sterile
Centrifuge Tube (50 mL)	Corning	430829	Sterile
Centrifuge, Refrigerated	Eppendorf	5804R	
Centrifuge, Refrigerated	Thermo	ST16R	
Centrifuge, Refrigerated	Thermo	Legend Micro 21R	
Cytofix/Cytoperm Kit (Transcription Factor Buffer Set)	BD Biosciences	562574	Prepare solution before use
Dimethyl Sulfoxide (DMSO)	Sigma-Aldrich	D2650	Keep at room temperature to prevent crystallization
Dulbecco's Phosphate Buffered Saline			Prepare ddH ₂ O (1000 ml) containing NaCl (8000 mg), KCl (200 mg), KH ₂ PO ₄ (200 mg), and Na ₂ HPO ₄ ·7H ₂ O (2160 mg). Adjust PH to 7.4. Sterilize through autoclave.
Ficoll-Paque Premium	GE Healthcare	17-5442-03	

Filter Tips (0.5-10)	Kirgen	KG5131	Sterile
Filter Tips (100-1000)	Kirgen	KG5333	Sterile
Filter Tips (1-200)	Kirgen	KG5233	Sterile
FITC-conjugated Anti-human CD4	BioLegend	300506	Keep protected from light
Fixable Viability Dye eFluor780	eBioscience	65-0865-14	Keep protected from light
GolgiStop Protein Transport Inhibitor (Containing Monensin)	BD Biosciences	554724	Protein Transport Inhibitor
Haemocytometer	Brand	718620	
HBV Core Antigen Derived Peptides	ChinaPeptides		
HEPES	Gibco	15630080	100 ml
Human Serum AB	Gemini Bio-Products	100-51	100 ml
Ionomycin	Sigma-Aldrich	I0634	
KCl	Sangon Biotech	A100395-0500	
KH ₂ PO ₄	Sangon Biotech	A100781-0500	
LSRFortessa Flow Cytometer	BD		
L-glutamine	Gibco	25030081	100 ml
Microcentrifuge Tube (1.5 mL)	Corning	MCT-150-C	Autoclaved sterilization before using
Microplate Shakers	Scientific Industries	MicroPlate Genie	
Mitomycin C	Roche	10107409001	
Na ₂ HPO ₄ .7H ₂ O	Sangon Biotech	A100348-0500	
NaCl	Sangon Biotech	A100241-0500	
PCR Tubes (0.2 mL)	Kirgen	KG2331	
PE/Cy7-conjugated Anti-human CD8	BioLegend	300914	Keep protected from light
PE-conjugated Anti-human IFN- γ	eBioscience	12-7319-42	Keep protected from light
Penicillin Streptomycin	Gibco	15140122	100 ml
PerCP-Cy5.5-conjugated Anti-human CD3	eBioscience	45-0037-42	Keep protected from light
Phorbol 12-myristate 13-acetate (PMA)	Sigma-Aldrich	P1585	
Recombinant Human IL-2	PeptoTech	200-02	
Recombinant Human IL-7	PeptoTech	200-07	
RPMI Medium 1640	Gibco	C11875500BT	500 ml
Sodium pyruvate, 100mM	Gibco	15360070	
Trypan Blue Stain (0.4%)	Gibco	15250-061	
Ultra-LEAF Purified Anti-human HLA-DR	BioLegend	307648	
Wizard Genomic DNA Purification Kit	Promega	A1125	