

## Journal of Hepatology

### CTAT methods

Tables for a “Complete, Transparent, Accurate and Timely account” (CTAT) are now mandatory for all revised submissions. The aim is to enhance the reproducibility of methods.

- Only include the parts relevant to your study
- Refer to the CTAT in the main text as ‘Supplementary CTAT Table’
- Do not add subheadings
- Add as many rows as needed to include all information
- Only include one item per row

**If the CTAT form is not relevant to your study, please outline the reasons why:**

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#### 1.1 Antibodies

Name	Citation	Supplier	Cat no.	Clone no.
Anti-mouse TCR $\beta$ chain, APC	N/A	BioLegend	159707	QA18A18
Anti-mouse CD45R/B220, APC-Cy7	PMID: 25098764	BioLegend	103223	RA3-6B2
Anti-mouse F4/80, APC-Cy7	PMID: 34289354	BioLegend	123117	BM8
Anti-mouse GzmB, FITC	PMID: 31305264	BioLegend	515403	GB11
Anti-mouse TNF $\alpha$ , AF700	PMID: 36525971	BioLegend	506338	MP6-XT22
Anti-mouse CD38, FITC	PMID: 36754962	BioLegend	102705	90
Anti-mouse I-A/I-E, PE	PMID: 33440159	BioLegend	107607	M5/114.15.2
Anti-mouse PD-1, BV605	PMID: 33288744	BioLegend	135219	29F.1.A12
Anti-human CD3, BV605	PMID: 27210614	BioLegend	317322	OKT3
Anti-human CD3, PE-Cy7	PMID: 36911070	BioLegend	300316	HIT3a
Anti-human CD4, Pacific Blue	PMID: 31156616	BioLegend	344620	SK3
Anti-human CD8, Alexa Fluor 700	PMID: 31924779	BioLegend	344724	SK1
Anti-human CD16, APC/Cy7	PMID: 36200281	BioLegend	302018	3GB
Anti-human CD19, PE-Dazzle	PMID: 32183951	BioLegend	302251	HIB19
Anti-human CD38, APC/Cy7	PMID: 36563682	BioLegend	303534	HIT2
Anti-human CD39, BV421	PMID: 37250788	BioLegend	328213	A1

Anti-human CD56, PE-Cy7	PMID: 32183951	BioLegend	362510	5.1H11
Anti-human CD279 (PD-1), PE	PMID: 36640111	BioLegend	329906	EH12.2H7
Anti-human IFN $\gamma$ , APC/Cy7	PMID: 36713390	BioLegend	502530	4S.B3
Anti-human IL-17, PerCP-Cy5.5	PMID: 37024617	BioLegend	512314	BL168
Anti-human TCR V $\delta$ 2, APC	PMID: 37953956	BioLegend	331417	B6
Anti-human TNF $\alpha$ , BV605	PMID: 35546782	BioLegend	502936	Mab11
Anti-human CD4, PE-Dazzle	PMID: 38658764	BD Bioscience	562281	RPA-T4
Anti-human Granzyme B, Alexa Fluor 700	PMID: 38157853	BD Bioscience	560213	GB11
Anti-human HLA-DR, FITC	PMID: 36800344	BD Bioscience	560944	G46-6
Anti-human invariant NK, PE	PMID: 30546901	BD Bioscience	562051	6B11
Anti-human perforin, Alexa Fluor 488	PMID: 37748098	BD Bioscience	563764	$\delta$ G9
Anti-human IFN $\gamma$ , FITC	PMID: 23525357	Miltenyi	130-113-492	45-15
Anti-human MR1-5-OP-RU tetramer, BV421	PMID: 24695216	NIH Tetramer Core Facility	N/A	N/A
Anti-human MR1-5-OP-RU tetramer, PE	PMID: 24695216	NIH Tetramer Core Facility	N/A	N/A
Anti-human FASL, unconjugated	PMID: 37426355	BioLegend	306415	NOK1
Anti-human TNF $\alpha$ , unconjugated	PMID: 39651304	Invivogen	htnfa-mab4	Adalimumab biosimilar
Anti-human IFN $\gamma$ , unconjugated	N/A	Invivogen	hifng-mab7	H7WM120
Anti-mouse MR1-5-OP-RU tetramer, BV421	PMID: 24695216	NIH Tetramer Core Facility	N/A	N/A

## 1.2 Cell lines

Name	Citation	Supplier	Cat no.	Passage no.	Authentication test method
HEPG2	N/A	ATCC	HB-8065	2-6	Morphology check, growth curve analysis, mycoplasma detection
SNU398	N/A	ATCC	CRL-2233	2-6	Morphology check, growth curve analysis, mycoplasma detection
PLC/PRF/5	N/A	ATCC	CRI-8024	2-6	Morphology check, growth curve analysis, mycoplasma detection

Huh-7	N/A	Cytion	300156	2-6	Morphology check, growth curve analysis, mycoplasma detection
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### 1.3 Organisms

Name	Citation	Supplier	Strain	Sex	Age	Overall n number
C57BL/6J mice	N/A	Janvier Labs	C57BL/6JRj	male	8-12 weeks	23

### 1.4 Sequence based reagents

Name	Sequence	Supplier
TaqMan ACTB	Hs99999903_m1	ThermoFisher
TaqMan ALOX5	Hs01095330_m1	ThermoFisher
TaqMan ALOX12	Hs00167524_m1	ThermoFisher
TaqMan ALOX15	Hs00993765_g1	ThermoFisher
TaqMan CHAC1	Hs00225520_m1	ThermoFisher
TaqMan NFE2L2	Hs00975961_g1	ThermoFisher
TaqMan KEAP1	Hs00202227_m1	ThermoFisher

### 1.5 Biological samples

Description	Source	Identifier
Human control livers	TUM University Hospital Royal Free Hospital, London	M1-M12 See Table 2 and supplementary Table 1
Human patient livers	TUM University Hospital Royal Free Hospital, London	L1-L19 See Table 2 and supplementary Table 1
Human control PBMCs	TUM University Hospital	H1-H46 See Table 1
Human patient PBMCs	TUM University Hospital	N1-N33 See Table 1
Human hepatocytes	LMU University Hospital	L20-L21 See Table 2 and supplementary Table 1

### 1.6 Deposited data

Name of repository	Identifier	Link
Gene Expression Omnibus	GSE250131	<a href="https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE250131">https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE250131</a>

### 1.7 Software

Software name	Manufacturer	Version
Prism	Graph Pad	V9
R	R Core Team	V4.3.1

FlowJo	BD Biosciences	V10.9.0
Seahorse Wave Pro	Agilent	V1.4.2
Analyst	SCIEX	V1.7.2
Seurat	Satija Lab	V4.3.0.1
DESeq2	Love et al. 2014	V1.40.2
GSEA	Hänzelmann et al. 2013	V3.20
clusterProfiler	Yu et al. 2012	V4.8.3

## 1.8 Other (e.g. drugs, proteins, vectors etc.)

Reagent	Supplier	Catalog nr.
Pancoll	Pan Biotech	P04-601000
Collagenase type IV	CellSystems	LS004188
Collagenase type IV	Sigma	C5138
DNase I	Sigma	4536282001
DNase I	Sigma	D5025
Percoll	Cytiva	17544502
RBC lysis buffer	eBioscience	00-4333-57
Anti-PE microbeads	Miltenyi Biotec	130-048-801
T cell TransAct human	Miltenyi Biotec	130-111-160
Human IL-2	Miltenyi Biotec	130-097-746
RPMI 1640 medium	Thermofisher	21875-034
Fetal calf serum	Thermofisher	10437-028
L-glutamine	Thermofisher	35050-061
Peenicillin Streptomycin	Thermofisher	15140-122
MEM medium	Thermofisher	41090-028
DMEM medium	Thermofisher	31966-021
Hydrocortisone	Sigma	H0888
Insulin	Sigma	I9278
L-glucagon	Sigma	G2044
Palmitic acid	Sigma	P0500
Stearic acid	Sigma	S4751
Oleic acid	Sigma	O1383
Linoleic acid	Sigma	L1012
Arachidonic acid	Sigma	A3611
Docosahexaenoic acid	Sigma	D2534
Dynabeads human T-Activator	Thermofisher	11131D
Human IL-12	Miltenyi	130-096-705
Human IL-18	R&D Systems	9124
<i>E.coli</i> DH5 $\alpha$	Thermofisher	18265017
mitoTEMPO	Sigma	SML0737
Liproxstatin-1	Sigma	SML1414
NAC	Sigma	A9165
$\alpha$ -tocopherol	Sigma	T3251
2,2-bipyridyl	Merck	D216305
Deferoxamine	Biomol	Cay14595-500
Oligomycin	Sigma	75351
Cumene hydroperoxide	Sigma	247502
Brefeldin A	Thermofisher	00-4506-51
Monensin	Thermofisher	00-4505-51
PMA	Sigma	P1585
Ionomycin	Sigma	I3909

HCS LipidTOX Green	Thermofisher	H34475
TMRE	Thermofisher	T669
BODIPY 581/591 C11	Thermofisher	D38861
XF RPMI Medium ph 7.4	Agilent	103576-100
LIVE/DEAD Fixable Aqua	Thermofisher	L34957
Intracellular Fixation & Permeabilization buffer	Thermofisher	88-8824-00
CellTrace Violet	Thermofisher	C34557
PGE2 ELISA Kit	Cayman Chemical	514010
RNeasy Plus Mini Kit	Qiagen	74136
High-Capacity cDNA Reverse Transcription kit	Thermofisher	4368814
TaqMan Universal Master Mix II	Thermofisher	4440038
RNeasy Plus Micro Kit	Qiagen	74034

**1.9 Please provide the details of the corresponding methods author for the manuscript:**

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**2.0 Please confirm for randomised controlled trials all versions of the clinical protocol are included in the submission. These will be published online as supplementary information.**

n/a