Materials Design Analysis Reporting (MDAR) Checklist for Authors

Materials

Antibodies	Yes (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	Methods section, 'Flow cytometry (FC) Analysis for Assessment of HUCD Cells' Phenotype' paragraph (pages 10-11).	

Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		n/a
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		n/a

Experimental animals	Yes (indicate where provided: section/paragraph)	n/a
Laboratory animals: Provide species, strain, sex, age, genetic modification status. Provide accession number in repository **OR** supplier name, catalog number, clone number, **OR** RRID		n/a
Animal observed in or captured from the field: Provide species, sex and age where possible		n/a
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		n/a

Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		n/a
Microbes: provide species and strain, unique accession number if available, and source		n/a

Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a
Provide a statement confirming informed consent obtained from study participants.		n/a
Report on age and sex for all study participants.		n/a

Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		n/a

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.	In-text citation of article in the method section, 'LIVE/DEAD Assay for Assessment of HUDC Cells' Viability and Annexin V Staining for Apoptosis Level' paragraph (page 11) on previously described protocol and in the reference section, reference 35. In-text citation of article in the method section, 'Genotype Analysis of HUDC Cells by Lymphocytotoxicity Test for HLA Class I and II Typing and Short Tandem Repeat-Polymerase Chain Reaction (STR-PCR)' paragraph (pages 9-10) as well as in the discussion section (page 20) on previously described protocol and in the reference section, reference 36. In-text citation of articles in the method section, 'PEG-mediated Cell Fusion Procedure' paragraph (pages 8-9) on previously described protocol and in the reference section, references 37, and 38.	

Experimental study design (statistics details)	Yes (indicate where provided: section/paragraph)	n/a
State whether and how the following have been done**, or** if they were not carried out.		
Sample size determination		n/a
Randomisation		n/a
Blinding		n/a
Inclusion/exclusion criteria		n/a

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Abstract section, 'Method' paragraph (page 3) and Material section, 'PEG-mediated Cell Fusion Procedure' paragraph (page 8) regarding the number of cell fusion procedures performed.	
Define whether data describe technical or biological replicates	Abstract section, 'Method' paragraph (page 3) and Material section, 'PEG-mediated Cell Fusion Procedure' paragraph (page 8) regarding technical replicates.	

Ethics	Yes (indicate where provided: section/paragraph)	n/a
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.	Methods section, 'Umbilical Cord Blood (UCB) Cells Isolation' paragraph (page 7) regarding the use of umbilical cord blood units.	

Dual Use Research of Concern (DURC)	Yes (indicate where provided: section/paragraph)	n/a
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		n/a

Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.		n/a

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Methods section, 'Statistical Analysis' paragraph (page 13).	

Data Availability	Yes (indicate where provided: section/paragraph)	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.		n/a
If data are publicly available, provide an accession number in the repository or DOI or URL.		n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		n/a

Code Availability	Yes (indicate where provided: section/paragraph)	n/a
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.	Method section, 'Genotype Analysis of HUCD Cells by Lymphocytotoxicity Test for HLA Class I and II Typing and Short Tandem Repeat-Polymerase Chain Reaction (STR-PCR)' paragraph (pages 9-10) regarding the GeneMapper software. Method section, 'LIVE/DEAD Assay for Assessment of HUDC Cells' Viability and Annexin V Staining for Apoptosis Level' paragraph (page 11) regarding the LSRFortessa and Flowjo softwares. Method section, 'Statistical Analysis' paragraph (page 13) regarding the Minitab software.	
If code is publicly available, provide an accession number in the repository, or DOI or URL.		n/a

Reporting

Adherence to community standards	Yes (indicate where provided: section/paragraph)	n/a
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.		
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	Section disclosure - Footnote, 'conflict of interest' paragraph (page 25): ICMJE uniform disclosure form.	

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