Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: doi:10.31222/osf.io/9sm4x.). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

Materials

Antibodies	Yes (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	PE anti-human CD56 Antibody， Biolegend Cat. No. 318306 APC anti-human CD19 Antibody， Biolegend Cat. No. 302212 FITC anti-human CD3 Antibody， Biolegend Cat. No. 300306 PE anti-human CD8a Antibody， Biolegend Cat. No. 300908 APC anti-human CD4 Antibody， Biolegend Cat. No. 300514 PE anti-human CD25 Antibody， Biolegend Cat. No. 302606 FITC anti-human FOXP3 Antibody， Biolegend Cat. No. 320106	

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		Not involved
Primary cultures: Provide species, strain, sex of origin, genetic modification status.		Not involved

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		Not involved
Animal observed in or captured from the field: Provide species, sex and age where possible		Not involved
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID		Not invo

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)		Not involved
Microbes: provide species and strain, unique accession number if available, and source		Not involved

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.	The human blood used in this study is donated, blood collection is only used in research projects methodological research, and not applied to humans or animals, so there is no ethical approval in the early stage of research	

<table>
<tr>
<td>Provide statement confirming informed consent obtained from study participants.</td>
<td>Informed consent for blood donation

I understand that the preparation and research of regulated T-cells can lay the foundation for the treatment of certain clinical diseases. This research project is approved by the Provincial Science And Technology Department, the main content of the project is to enlarge the regulatory T cells in the peripheral blood and its function research.
I understand that blood donors need to donate 50 ml of blood at one time. Use disposable sterile consumables to collect blood, ensuring the safety of blood donors. Loss of 50 ml blood generally does not cause an uncomfortable reaction.
I understand that the project requires the collection of basic information for scientific research and that the project unit will protect my privacy to the extent required by law. The donated samples and information will be anonymized.
I will carefully fill out the Blood Donor Health Questionnaire on the principle of seeking truth from facts if the adverse consequences of falsehood are borne by me.</td>
<td></td>
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<tr>
<td>Report on age and sex for all study participants.</td>
<td>
<table>
<tr><th>Name</th><th>age</th><th>sex</th></tr>
<tr><td>Blood donor 1</td><td>48</td><td>female</td></tr>
<tr><td>Blood donor 2</td><td>38</td><td>male</td></tr>
<tr><td>Blood donor 3</td><td>44</td><td>male</td></tr>
<tr><td>Blood donor 4</td><td>48</td><td>male</td></tr>
<tr><td>Blood donor 5</td><td>50</td><td>female</td></tr>
<tr><td>Blood donor 6</td><td>49</td><td>female</td></tr>
<tr><td>Blood donor 7</td><td>45</td><td>male</td></tr>
<tr><td>Blood donor 8</td><td>67</td><td>male</td></tr>
<tr><td>Blood donor 9</td><td>73</td><td>female</td></tr>
<tr><td>Blood donor 10</td><td>69</td><td>male</td></tr>
<tr><td>Blood donor 11</td><td>65</td><td>female</td></tr>
<tr><td>Blood donor 12</td><td>62</td><td>female</td></tr>
</table>
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Design

Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.		Not involve

Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		Not involve d

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.	This paper was designed to plan at least 8 per group according to statistical requirements, but the final blood donor was only 12.	
Sample size determination	12	
Randomisation	Random selection outside the exclusion criteria	
Blinding		Not involve d
Inclusion/exclusion criteria	Exclusion criteria: except for people with infectious diseases, malignancies, and immune diseases	

Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Usually 2 times	
Define whether data describe technical or biological replicates	Measured 2 times	

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.		No
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		Not involve d
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		Not involve d

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		Not involve d

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.	Two samples that were not successfully cultured were not included in the statistical analysis.	

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	GraphPad Prism 8 statistical software （GraphPad Software Inc., San Diego, CA, USA)	

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.		Not involved
If data are publicly available, provide accession number in repository or DOI or URL.		Not involve
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.		Not involved

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:		Not involve
State whether the code or software is available.		Not
If code is publicly available, provide accession number in repository, or DOI or URL.		Not involved

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.		No
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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