

## **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](https://doi.org/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**

<b>Antibodies</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
For commercial reagents, provide supplier name, catalogue number and RRID, if available.		We haven't used any antibody.
<b>Cell materials</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
<b>Cell lines:</b> Provide species information, strain. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID		We haven't used any cell line.
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.		We haven't used primary cultures.
<b>Experimental animals</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
<b>Laboratory animals:</b> Provide species, strain, sex, age, genetic modification status. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID		We haven't used any laboratory animal.
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible		We haven't used any experimental animal.
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID		We haven't used any model organism.
<b>Plants and microbes</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
<b>Plants:</b> provide species and strain, unique accession number if available, and source (including location for collected wild specimens)		We haven't used any plant.
<b>Microbes:</b> provide species and strain, unique accession number if available, and source		We haven't used any microbe.
<b>Human research participants</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		None human research participant was included in our research.
Provide statement confirming informed consent obtained from study participants.		None human research participant was included
Report on age and sex for all study participants.		None human research participant was included in our research.

**Design**

<b>Study protocol</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
For clinical trials, provide the trial registration number <b>OR</b> cite DOI in manuscript.		This research was not a clinical trial.
<b>Laboratory protocol</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
Provide DOI or other citation details if detailed step-by-step protocols are available.		Laboratory protocols were not included in this research.
<b>Experimental study design (statistics details)</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State whether and how the following have been done, <b>or</b> if they were not carried out.		
Sample size determination	The data were downloaded from	
Randomisation	The data were downloaded from	
Blinding		This study didn't involve
Inclusion/exclusion criteria	The data were downloaded from	
<b>Sample definition and in-laboratory replication</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State number of times the experiment was replicated in laboratory		This study didn't involve Sample definition and in-laboratory replication
Define whether data describe technical or biological replicates		This study didn't involve Sample definition and in-
<b>Ethics</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		This study didn't involve ethic.
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		This study didn't involve ethic.
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		This study didn't involve ethic.
<b>Dual Use Research of Concern (DURC)</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
If study is subject to dual use research of concern, state the authority granting approval and reference number for the regulatory approval		This study is not subject to dual use research of concern.

## Analysis

<b>Attrition</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.	No sample or data point from the analysis was excluded, and no criteria for exclusion were determined and specified in advance.	n/a
<b>Statistics</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
Describe statistical tests used and justify choice of tests.	The information were supplied in the methods.	
<b>Data Availability</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
State whether newly created datasets are available, including protocols for access or restriction on access.	The information were supplied in the methods.	
If data are publicly available, provide accession number in repository or DOI or URL.	The information were supplied in the methods.	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	The information were supplied in the methods.	
<b>Code Availability</b>	<b>Yes (indicate where provided:</b>	<b>n/a</b>
For all newly generated code and software essential for replicating the main findings of the study:		
State whether the code or software is available.	The information were supplied in the methods.	
If code is publicly available, provide accession number in repository, or DOI or URL.	The information were supplied in the methods.	

## Reporting

<b>Adherence to community standards</b>	<b>Yes (indicate where provided: section/paragraph)</b>	<b>n/a</b>
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.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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