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.	2. Methods/paragraph 3	

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	2. Methods/paragraph1	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No, the manuscript does not involve relevant experiments.	**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	No, the manuscript does not involve relevant experiments.	**n/a**
Animal observed in or captured from the field: Provide species, sex and age where possible	No, the manuscript does not involve relevant experiments.	**n/a**
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	No, the manuscript does not involve relevant experiments.	**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)	No, the manuscript does not involve relevant experiments.	**n/a**
Microbes: provide species and strain, unique accession number if available, and source	No, the manuscript does not involve relevant experiments.	**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.	No, this study is not a clinical trial.	**n/a**
Provide statement confirming informed consent obtained from study participants.	No, this study is not a clinical trial.	**n/a**
Report on age and sex for all study participants.	No, this study is not a clinical trial.	**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.	No, this study is not a clinical trial.	**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.	No, there are no detailed step-by-step protocols.	**n/a**

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	No, our study does not involve this design.	**n/a**
Randomisation	No, our study does not involve this design.	**n/a**
Blinding	No, our study does not involve this design.	**n/a**
Inclusion/exclusion criteria	No, our study does not involve this design.	**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	2. Methods/paragraph 9, line 265	
Define whether data describe technical or biological replicates	No, our study does not involve this design.	**n/a**

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, there are no human involving in the study.	**n/a**
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No, there are no animals involving in the study.	**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.	Yes, the study was approved by the Clinical Research Ethics Committee of the Affiliated Hospital of Hebei University, and all tissue samples were collected with written informed consent from the patients.	

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	No.	**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.	No, our study does not involve this design.	n/a

Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	2. Methods/paragraph 9, line 263.	

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.	No, our study does not involve this design.	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	No, our study does not involve this design.	n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	No, our study does not involve this design.	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.	Our study do not involve generating code and	n/a
If code is publicly available, provide accession number in repository, or DOI or URL.	Our study do not involve generating code and software.	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.	ICMJE guidelines were followed, as the journal follows ICMJE recommendations for publication.	

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