<u>Materials Design Analysis Reporting (MDAR)</u> 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	In present study, all of results that were used the	N/A
name, catalogue number and RRID, if available.	public database to perform, no experiment in this study.	
Cell materials	Yes (indicate where provided: section/paragraph)	n/a
Cell lines: Provide species information, strain.	In present study, all of results that were used the	n/a N/A
Provide accession number in repository OR	public database to perform, no experiment in this	IN/A
supplier name, catalog number, clone number, OR RRID	study.	
Primary cultures: Provide species, strain, sex of	In present study, all of results that were used the	N/A
origin, genetic modification status.	public database to perform, no experiment in this	
Experimental animals	Yes (indicate where provided: section/paragraph)	n/a
Laboratory animals: Provide species, strain, sex, age,	In present study, all of results that were used the	N/A
genetic modification status. Provide accession	public database to perform, no experiment in this	
number in repository OR supplier name, catalog number, clone number, OR RRID	study.	
Animal observed in or captured from the	In present study, all of results that were used the	N/A
field: Provide species, sex and age where	public database to perform, no experiment in this	
possible	study.	
Model organisms: Provide Accession number	In present study, all of results that were used the	N/A
in repository (where relevant) OR RRID	public database to perform, no experiment in this	
Plants and microbes	Yes (indicate where provided: section/paragraph)	n/a
Plants: provide species and strain, unique accession	In present study, all of results that were used the	N/A
number if available, and source (including location for collected wild specimens)	public database to perform, no experiment in this study.	
Microbes: provide species and strain, unique	In present study, all of results that were used the	N/A
accession number if available, and source	public database to perform, no experiment in this study.	
Human research participants	Yes (indicate where provided: section/paragraph)	n/a
Identify authority granting ethics approval (IRB or	In present study, all of results that were used the	N/A
equivalent committee(s), provide reference number	public database to perform, no experiment in this	
for approval.	study.	
Provide statement confirming informed consent	In present study, all of results that were used the	N/A
obtained from study participants.	public database to perform, no experiment in this study.	
Report on age and sex for all study participants.	In present study, all of results that were used the	N/A
	public database to perform, no experiment in this	

<u>Design</u>

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Study protocol	Yes (indicate where provided: section/paragraph)	n/a
For clinical trials, provide the trial registration number OR cite DOI in manuscript.	In present study, all of results that were used the	N/A
number of the born manuscript.	public database to perform, no experiment in this study.	
Laboratory protocol	Yes (indicate where provided: section/paragraph)	n/a
Provide DOI or other citation details if detailed step-	In present study, all of results that were used the	N/A
by-step protocols are available.	public database to perform, no experiment in this	,
	study.	
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	In present study, all of results that were used the	N/A
	public database to perform, no experiment in this	
	study.	
Randomisation	In present study, all of results that were used the	N/A
	public database to perform, no experiment in this	
	study.	
Blinding	In present study, all of results that were used the	N/A
	public database to perform, no experiment in this	
	study.	
Inclusion/exclusion criteria	In present study, all of results that were used the	N/A
	public database to perform, no experiment in this	
	study.	
Sample definition and in-laboratory replication		
	Voc (indicate where provided, section /paragraph)	2/2
	Yes (indicate where provided: section/paragraph)	n/a N/Δ
State number of times the experiment was	In present study, all of results that were used the	n/a N/A
State number of times the experiment was replicated in laboratory	In present study, all of results that were used the public database to perform, no experiment in this	N/A
State number of times the experiment was	In present study, all of results that were used the	
State number of times the experiment was replicated in laboratory Define whether data describe technical or biological replicates	In present study, all of results that were used the public database to perform, no experiment in this In present study, all of results that were used the public database to perform, no experiment in this	N/A N/A
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Analysis

Attrition	Yes (indicate where provided: section/paragraph)	n/a
State if sample or data point from the analysis is	See page 6, line 196-197. Methods.	
excluded, and whether the criteria for exclusion were		
determined and specified in advance.		

Statistics	Yes (indicate where provided: section/paragraph)	n/a	
Describe statistical tests used and justify choice of	See page 4, line 130-143. Methods.		
tests.			

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.	See page 4, line 131, 133; Page 5 142. Methods.	
If data are publicly available, provide accession number in repository or DOI or URL.	See page 4, line 131, 133; Page 5 142. Methods.	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	See page 4, line 131, 133; Page 5 142. Methods.	

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.	See page 4, line 131, 133,134; Page 5 142,149.	
If code is publicly available, provide accession number in repository, or DOI or URL.	See page 4, line 131, 133,134; Page 5 142,149. Methods.	

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,	ICMJE guidelines were followed, as the journal follows	
ARRIVE) have been followed, and whether a checklist	ICMJE recommendations for publication.	
(eg., CONSORT, PRISMA, ARRIVE) is provided with		
the manuscript.		

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