Materials Design Analysis Reporting (MDAR) Checklist for Authors

The MDAR framework establishesa 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.	**Methods- Cell lines section Line 75-76; Real-timePCR, Line89-99**	

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	**Methods- Cell lines section Line75-78; RNA pulldown section Line 111-112**	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	There no primary cultures cells or animals in the study.	**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	In the manuscript, we don't use any animals.	**n/a**
Animal observed in or captured from the field: Provide species, sex and age where possible	In the manuscript, we don't use any animals for the experiments.	**n/a**
Model organisms: Provide Accession number in repository (where relevant) **OR** RRID	In the manuscript, we don't apply for any animals for experiment study.	**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 plants and microbes were used in our experiments.	**n/a**
Microbes: provide species and strain, unique accession number if available, and source	There no plants and microbes be used in experiment study.	**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.	**2019ZDSYLL067-P01**	
Provide statement confirming informed consent obtained from study participants.	Our experiment don't involve in patient private.	**n/a**
Report on age and sex for all study participants.	**Please see Table 2.**	

Design

Studyprotocol	Yes (indicate where provided:section/paragraph)	n/a
For clinical trials, provide the trial registration number **OR** cite DOI in manuscript.	**2019ZDSYLL067-P01**	

Laboratoryprotocol	Yes (indicate where provided:section/paragraph)	n/a
Provide DOI or other citation details if detailed step-by-step protocols are available.		**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		**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	**Figure legend section, Figure 1-7**	
Define whether data describe technical or biological replicates	**Results section, line 179-181, 191-193**	

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.	**Patients and samples section, Line 72**	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	Studies don't involving any experimental animals	**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.	**Patients and samples section, Line 72**	

Dual Use Research of Concern (DURC)	Yes (indicate where provided:section/paragraph)	n/a
If study is subject to dual use research ofconcern, statethe authority granting approval and reference number for the regulatory approval	**Patients and samples section, Line 72**	

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.	There were no specified treatment data in advance in study.	n/a

Statistics	Yes (indicate where provided:section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	Yes, please seen on Statistics analysis section, line 168	

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.	We have no data availability for the study	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	We have no data availability for the study	n/a
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	We have no data availability for the study	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.	We don't use Code Availability for the study	n/a
If code is publicly available, provide accession number in repository, or DOI or URL.	We don't use Code Availability for the study	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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