

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

Antibodies	Yes (indicate where provided: section/paragraph)	n/a
For commercial reagents, provide supplier name, catalogue number and RRID, if available.	anti-FGL1 polyclonal antibody (1:100 dilution; Proteintech, 16000-1-AP, Wuhan China); section Immunohistochemical staining and Immunofluorescence staining secondary antibody conjugated with horseradish peroxidase (HRP, 1:200 dilution, Servicebio, GB23303, China); section Immunohistochemical staining	
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	PC9 lung cancer cells (human; iCell Bioscience Inc., Shanghai, iCell-h263, China); section Cell culture and FGL1 knockdown HCC827 lung cancer cells (human; iCell Bioscience Inc., Shanghai, iCell-h068, China); section Cell culture and FGL1 knockdown Jurkat T cell (human, iCell Bioscience Inc, Shanghai, iCell-h117, China); section Cell culture and FGL1 knockdown RPMI 1640 (Gibco, Shanghai, 11879020, China); section Cell culture and FGL1 knockdown total protein collection kit (Invent Biotechnologies Inc., Plymouth, MN, SD-001, USA); section Western blot analysis bovine serum albumin (BSA; Beyotime, Shanghai, ST025, China) kit; section Western blot analysis QuickBlock (Beyotime, Shanghai, P0252, 15596018, China); section Western blot analysis	
Primary cultures: Provide species, strain, sex of origin, genetic modification status.	No any primary culture in the manuscript.	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 any laboratory animals in the manuscript.	n/a
Animal observed in or captured from the field: Provide species, sex and age where possible	No any laboratory animals in the manuscript.	n/a
Model organisms: Provide Accession number in repository (where relevant) OR RRID	No any laboratory animals in the manuscript.	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 any plants or microbes in the manuscript.	n/a
Microbes: provide species and strain, unique accession number if available, and source	No any plants or microbes in the manuscript.	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.	The study was approved by the Ethics Committee of the Air Force Medical University (202003-018), section Ethical Statement	
Provide statement confirming informed consent obtained from study participants.	Written informed consents were obtained, section Ethical Statement:	
Report on age and sex for all study participants.	Not relevant to our study	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.	It 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 any 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	They were not carried out	n/
Randomisation	They were not carried out	n/
Blinding	They were not carried out	n/
Inclusion/exclusion criteria	Section Immunohistochemical staining	
Sample definition and in-laboratory replication	Yes (indicate where provided: section/paragraph)	n/a
State number of times the experiment was replicated in laboratory	Each experiment was replicated three times	
Define whether data describe technical or biological replicates	Technical replicates	
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.	The study was approved by the Ethics Committee of the Air Force Medical University (202003-018), line 394, section Ethical Statement	
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.	No any laboratory animals in the manuscript.	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.	The study was approved by the Ethics Committee of the Air Force Medical University (202003-018), line 394, section Ethical Statement	
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 relevant	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.	Section Immunohistochemical staining	
Statistics	Yes (indicate where provided: section/paragraph)	n/a
Describe statistical tests used and justify choice of tests.	section Statistical Analysis	
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 newly created datasets	n/a
If data are publicly available, provide accession number in repository or DOI or URL.	The data from datasets are available, the accession number could be found in section MATERIALS AND METHODS	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	The data from datasets are available, the accession number could be found in section MATERIALS AND 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:	Not relevant	
State whether the code or software is available.		
If code is publicly available, provide accession number in repository, or DOI or URL.		

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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