

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

|                                     |   |
|-------------------------------------|---|
| n/a                                 | Confirmed   |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> The exact sample size ( <i>n</i> ) for each experimental group/condition, given as a discrete number and unit of measurement  |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly   |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> The statistical test(s) used AND whether they are one- or two-sided<br><i>Only common tests should be described solely by name; describe more complex techniques in the Methods section.</i>  |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> A description of all covariates tested  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals) |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i> ) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted<br><i>Give P values as exact values whenever suitable.</i>          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Estimates of effect sizes (e.g. Cohen's <i>d</i> , Pearson's <i>r</i> ), indicating how they were calculated   |

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

|                 |  |
|-----------------|--|
| Data collection | Nothing specific to this study. All images were collected on Olympus FV-3000 live microscope set up.   |
| Data analysis   | The image analysis was performed using Image J or Fiji softwares. Wound healing with T-Scratch, and western and Coomassie stained gel bands were quantified using Gel.Quant. The freely accessible version of these softwares were used in this study. |

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

No such datasets are generated in this study. Where ever a dataset is used a relevant reference is provided.

## Research involving human participants, their data, or biological material

Policy information about studies with [human participants or human data](#). See also policy information about [sex, gender \(identity/presentation\), and sexual orientation](#) and [race, ethnicity and racism](#).

|  |   |
|--|---|
| Reporting on sex and gender  | No human participant was part of this study.                                    |
| Reporting on race, ethnicity, or other socially relevant groupings | No human participant was part of this study, thus these aspects are irrelevant. |
| Population characteristics   | No human participant was part of this study, thus this was not required.        |
| Recruitment  | No human participant was part of this study, thus this was not required.        |
| Ethics oversight   | No human participant was part of this study, thus this did not happen.          |

Note that full information on the approval of the study protocol must also be provided in the manuscript.

## Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☒ Life sciences ☐ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

## Life sciences study design

All studies must disclose on these points even when the disclosure is negative.

|                 |  |
|-----------------|--|
| Sample size     | Where ever relevant, sample size is mentioned. Mostly in term of how many cells were used for experimentation. How many cells were analyzed for a given observation. |
| Data exclusions | There was no need for any such exclusion.  |
| Replication     | A minimum of three biological replicates for each of the experiment performed.   |
| Randomization   | Randomization was carried for cell culture based analysis.   |
| Blinding        | Not required for reported experiments as most the experiments were performed in cell lines with no bias.   |

## Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

### Materials & experimental systems

| n/a                                 | Involved in the study                                     |
|-------------------------------------|---|
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> Antibodies            |
| <input type="checkbox"/>            | <input checked="" type="checkbox"/> Eukaryotic cell lines |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Palaeontology and archaeology    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Animals and other organisms      |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Clinical data                    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Dual use research of concern     |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Plants                           |

### Methods

| n/a                                 | Involved in the study                           |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> ChIP-seq               |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Flow cytometry         |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> MRI-based neuroimaging |

## Antibodies

|                 |  |
|-----------------|--|
| Antibodies used | Rabbit polyclonal antibodies, Mouse monoclonal primary antibodies, Flourophore tagged secondary antibodies           |
| Validation      | All antibodies used in this studies were obtained from commercial sources and are validated by the source companies. |

## Eukaryotic cell lines

Policy information about [cell lines and Sex and Gender in Research](#)

|  |  |
|--|--|
| Cell line source(s)  | All cell lines used in this study were procured from ATCC or from Cellular repository of National Center for Cell Sciences (NCCS). |
| Authentication   | These cells were authenticated from the sources they were procured using standard authentication procedures.                       |
| Mycoplasma contamination   | regular use of mycoplasma removal reagent, DAPI based staining and PCR based analysis of any mycoplasma contamination              |
| Commonly misidentified lines<br>(See <a href="#">ICLAC</a> register) | We have not used any such cell line in this study.   |

## Plants

|                       |   |
|-----------------------|---|
| Seed stocks           | No plant or plant tissue like seed was used in this study.  |
| Novel plant genotypes | No plant or plant tissue like seed was used in this study that required reporting of novel genotypes. |
| Authentication        | Since no seeds were procured and used in this study, their authentication was not needed.             |