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Sample-size estimation

- You should state whether an appropriate sample size was computed when the study was being designed
- You should state the statistical method of sample size computation and any required assumptions
- If no explicit power analysis was used, you should describe how you decided what sample (replicate) size (number) to use

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

All data were derived from experiments done in vitro; no comparative trials were done that required an a priori sample size determination. Numbers of replicates and independent experiments are described in the legend to figure, or are apparent from tables in the Source Data document.

Replicates

- You should report how often each experiment was performed
- You should include a definition of biological versus technical replication
- The data obtained should be provided and sufficient information should be provided to indicate the number of independent biological and/or technical replicates
- If you encountered any outliers, you should describe how these were handled
- Criteria for exclusion/inclusion of data should be clearly stated
- High-throughput sequence data should be uploaded before submission, with a private link for reviewers provided (these are available from both GEO and ArrayExpress)

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

This information can be found within the legends to figures. "Biological replicates" refer to observations made on individual biological samples (replicate cell suspensions subjected to a common set of conditions); "independent experiments" refer to replicate experiments carried out with different source materials on different days. No outliers were excluded; no high throughput sequencing data was generated in this study.



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Statistical reporting

- Statistical analysis methods should be described and justified
- Raw data should be presented in figures whenever informative to do so (typically when N per group is less than 10)
- For each experiment, you should identify the statistical tests used, exact values of N, definitions of center, methods of multiple test correction, and dispersion and precision measures (e.g., mean, median, SD, SEM, confidence intervals; and, for the major substantive results, a measure of effect size (e.g., Pearson's r, Cohen's d)
- Report exact p-values wherever possible alongside the summary statistics and 95% confidence intervals. These should be reported for all key questions and not only when the p-value is less than 0.05.

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

Statistical methods are described in the Materials and Methods. In most histograms, we show individual data points superimposed on bars. Error bars and n are described in the legends for each panel, or can be deduced from the Source Data tables. The large number of individual statistical comparisons precluded showing exact p-values in figures or text. Where significant (p<0.05), p-values are shown as footnotes in legends and reported within intervals as: *<0.05,**<0.01, ***<0.001, or **** < 0.0001. Raw data for all graphs in both main and supplemental figures are provided in the Source Data document, an Excel workbook file with individual worksheets referenced to each figure/panel.

(For large datasets, or papers with a very large number of statistical tests, you may upload a single table file with tests, Ns, etc., with reference to sections in the manuscript.)

Group allocation

- Indicate how samples were allocated into experimental groups (in the case of clinical studies, please specify allocation to treatment method); if randomization was used, please also state if restricted randomization was applied
- Indicate if masking was used during group allocation, data collection and/or data analysis

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

Observations were made on identical cell culture suspensions subjected to different experimental conditions. There was no need for allocation, and no masking or randomization of samples was included in the experimental design.

Additional data files ("source data")

- We encourage you to upload relevant additional data files, such as numerical data that are represented as a graph in a figure, or as a summary table
- Where provided, these should be in the most useful format, and they can be uploaded as "Source data" files linked to a main figure or table
- Include model definition files including the full list of parameters used
- Include code used for data analysis (e.g., R, MatLab)
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Please indicate the figures or tables for which source data files have been provided:



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Source data are provided for each graphical figure panel in a summary table. These tables are organized into a single Excel workbook, with data from the panels in each figure (and all supplemental figures) presented within individual worksheets. No quantitative models or special code were used in this study.