# Package 'SpatialDatasets'

February 18, 2025

**Version** 1.5.0

**Title** Collection of spatial omics datasets

**Description** This is a collection of publically available spatial omics datasets.
Where possible we have curated these datasets as either SpatialExperiments,
MoleculeExperiments or CytoImageLists and included annotations of the sample
characteristics.

**URL** https://github.com/SydneyBioX/SpatialDatasets

**BugReports** https://github.com/SydneyBioX/SpatialDatasets/issues

**License** GPL-3

**Encoding** UTF-8

**biocViews** ExperimentData, ExperimentHub, ReproducibleResearch,
SingleCellData, SpatialData, Homo_sapiens_Data,
Mus_musculus_Data

**Depends** ExperimentHub, SpatialExperiment,

**Imports** utils

**VignetteBuilder** knitr

**Suggests** BiocStyle, knitr, rmarkdown

**RoxygenNote** 7.3.2

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# Contents

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SpatialDatasets              *A collection of publically available spatial omics datasets.*

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### Description

This is a collection of publically available spatial omics datasets. Where possible we have curated these datasets as either SpatialExperiments, MoleculeExperiments or CytoImageLists and included annotations of the sample characteristics.

### Details

The `SpatialDatasets` package contains a collection of spatially-resolved omics datasets for use in examples, demonstrations, and tutorials.

The datasets are from several different platforms including IMC, MIBI-TOF, CODEX, Xenium, CosMx and MERFISH. They have been sourced from various publically available sources.

Additional examples and documentation are provided in the package vignette.

*Datasets*

The `SpatialDatasets` package contains the following datasets:

- spe_Keren_2018 (MIBI-TOF): A study on triple negative breast cancer containing 40 samples measured using MIBI-TOF published by [Keren et al. (2018)](https://doi.org/10.1016/j.cell.2018.08.039).

- Ferguson_Images (IMC): A study on head and neck cutaneous squamous cell carcinoma containing 44 samples measured using IMC published by [Ferguson et al. (2022)](https://doi.org/10.1158/1078-0432.CCR-22-1332).

- spe_Ferguson_2022 (IMC): A study on head and neck cutaneous squamous cell carcinoma containing 44 samples measured using IMC published by [Ferguson et al. (2022)](https://doi.org/10.1158/1078-0432.CCR-22-1332).

- spe_Schurch_2020 (CODEX): A study on advanced colorectal cancer containing 140 samples measured using CODEX published by [Schurch et al. (2020)](https://doi.org/10.1016/j.cell.2020.07.005).

- spe_Ali_2020 (IMC): A study on breast cancer containing 483 samples measured using IMC published by [Ali et al. (2020)](https://doi.org/10.1038/s43018-020-0026-6).

The datasets will be a SpatialExperiment or MoleculeExperiment.

# load using dataset name spe <- spe_Keren_2018() spe

# Index