



GETTING STARTED WITH SPRINGER NATURE EXPERIMENTS

SPRINGER NATURE
Experiments

This guide explains how to perform a basic search, refine your search results, use the Article Evaluation Pages, and access full-text content using Springer Nature Experiments: the research solution for protocols and methods.

To access the platform, visit experiments.springernature.com. It is free to use and you do not need to log in.

ADVANCING
DISCOVERY

Homepage

The screenshot shows the top section of the homepage. At the top, there is a search bar with a magnifying glass icon and the placeholder text "e.g. protocol, technique, organism...". A small dark blue tab with the number "1" is positioned above the search bar. Below the search bar is a horizontal navigation bar with three tabs: "Nature Protocols", "Nature Methods", and "Springer Protocols". A small dark blue tab with the number "2" is positioned above the "Nature Protocols" tab.

The screenshot shows the main content area of the homepage, which is divided into four horizontal sections, each with a title, a list of techniques, and an icon. A small dark blue tab with the number "3" is positioned above the first section.

- Molecular techniques** (Icon: Microscope)
 - Single-molecule Assay
 - In Situ Hybridization
 - Recombinant Protein Expression
 - Western Blot
 - ChIP-seq
 - CRISPR
 - Cross-linking
 - High-Throughput Sequencing
- Microscopy techniques** (Icon: Microscope)
 - Calcium Imaging
 - Super-resolution Microscopy
 - Cryo-EM
 - Two-photon Microscopy
- Cell and tissue culture techniques** (Icon: Petri dishes)
 - 3D Cell Culture
 - Organoid Culture
 - Tissue Engineering
 - Co-Immunoprecipitation
 - Single-cell Assay
 - Immunohistochemistry
- Spectroscopy techniques** (Icon: Graph)
 - X-ray Diffraction
 - Mass Spectrometry
 - NMR

- 1 You can start your search straight away using the search bar on the homepage. Our smart search function will provide suggestions of research techniques when you start typing.
- 2 Browse content by source publication.
- 3 Browse through our technique pages to discover protocols and methods related to major techniques in the life sciences.

Exploring protocols and methods by technique

Ranging from Molecular techniques, through to Microscopy, Cell & Tissue Culture and Spectroscopy, our technique topic pages gather all there is to know about the most current and impactful research techniques. Whether you want to brush up on a specific technique or explore the latest developments, you will find relevant content on these pages.

CRISPR Protocols And Methods

Recently cited | Recently published | Review papers | Related Techniques

1 Synonyms

5 Take advantage of our search tool to find 3 ger Nature protocols and methods related to CRISPR systems, the most applied technique in Genome Editing.

2

4

7 Broader concepts

Genetic Engineering

Genome Editing

CRISPR

6

- CRISPR-Cas9 Genome Editing
- CRISPRi
- CRISPRa
- CRISPR-droplet Sequencing
- Cas9-Assisted Targeting Of CHromosome Segments (CATCH)
- Easi-CRISPR

1

Recently cited papers

The three most Recently cited protocols and methods using the research technique.

2

Recently published papers

The three Most recently published protocols and methods using the research technique.

3

Review papers

Explore the different methodological approaches for a specific technique and select the best one for your experiment.

4

Related techniques

Explore the relationship between research techniques and find out which techniques are used together in the lab.

5

Synonyms

Since techniques can be named or described differently in different research fields, we have compiled some of the most common synonyms.

6

Technique hierarchy

This scheme shows all the related sub-techniques, allowing you to explore connections and refine your search as needed.

7

Broader concepts

You can also expand your search with broader concepts encompassing the research technique you are exploring.

Performing a search

The search works across all Springer Nature protocols and methods content and has been optimized specifically for this purpose with recognition of common scientific synonyms and abbreviations. Our semantic search identifies research techniques, model organisms and cell lines in search queries and only returns protocols and methods that use them.



The screenshot shows a search interface with the query "hela Western Blot" and 207 results. The search filters on the left include "Technique: Western Blot" and "Cell Line: HeLa". The main results area shows a protocol titled "Optimization of immunoprecipitation-western blot analysis in detecting GW182-associated components of GW/P bodies" from Nature Protocols (2009). The article is by Joanna J Moser, Edward K L Chan, and Marvin J Fritzier. The abstract describes characterizing the components of GW/processing bodies. The article includes techniques like SDS-PAGE, Western Blot, RNA Interference, Immunoprecipitation, and BCA assay. Models used are Mus (mouse), U-87MG Uppsala, and HeLa. It has 12 citations and 2,056 downloads.

The search results page

By default, search results are sorted by relevance but you also have the option to sort them by date of publication, citations and trending content (based on the number of downloads within the last month).

Refining your search results

In the left-hand column of the search results screen, you will find the search filters. These enable you to easily narrow down your search by:

- 1 **Publication year** – enter a start year and end year into the boxes or use the sliders to refine results to only those published within this date range. Content is available from 1980 to present.
- 2 **Video available** - filters to show just the articles with video content.
- 3 **Technique** – the techniques with the most matches will be shown in this collapsed menu, but you can click “Show all” to view the full list or use the dedicated search option to locate a given technique. This filter is powered by our in-house ontologies and AI/text-mining tools which enable us to identify and normalize techniques within full-text and deliver the most relevant results to you.
- 4 **Article category** – choose from different types of content, including protocols, overviews (introduction articles), reviews and research (articles and brief communications). Click “Show all” to expand the filter.
- 5 **Source** – refine results to a specific journal title or book series from the Springer Nature portfolio.

The detailed view of the search filters includes:

- Publication Year:** A slider filter with boxes for 1997 and 2019, and a count of 1.
- Video:** A checkbox for "Video available" with a count of 2.
- Technique:** A dropdown menu showing 3 techniques and a "Show more" link.
- Technique List:** A list of techniques with their respective counts:

| | |
|---|-----|
| <input type="checkbox"/> Cell And Tissue Culture | 157 |
| <input type="checkbox"/> SDS-PAGE | 128 |
| <input type="checkbox"/> Transfection | 111 |
| <input type="checkbox"/> Electrophoresis | 52 |
| <input type="checkbox"/> PCR | 52 |
| <input type="checkbox"/> Cell Lysis | 51 |
| <input type="checkbox"/> Gel Electrophoresis | 45 |
| <input type="checkbox"/> Immunoprecipitation | 43 |
| <input type="checkbox"/> Recombinant Protein Expression | 33 |
| <input type="checkbox"/> Flow Cytometry | 32 |
- Article Category:** A checkbox for "Protocol" with a count of 207.
- Source:** A list of sources with their respective counts:

| | |
|---|-----|
| <input type="checkbox"/> Nature Research | 11 |
| <input type="checkbox"/> Nature Protocols | 11 |
| <input type="checkbox"/> Springer | 196 |

Evaluating your results

Within each search result, you will find a number of details that will help you to carry out an at-a-glance evaluation. Once you have refined your results, you can click on a search result title to view the article evaluation page.

The screenshot shows a search result for a protocol titled "Methods for Assessing Autophagy and Autophagic Cell Death" from Springer Protocols (2008). The page is filtered by "Most cited" and shows a slider for "Publication Year" (1907-2019) and a "Video" section with a "Video available" checkbox. The article details include authors (Ezgi Tasdemir, Lorenzo Galluzzi, M. Chiara Maiuri, Alfredo Criollo, Guido Kroemer), techniques (Western Blot, Electrophoresis, Immunoelectron Microscopy, TEM, Liquid Scintillation Counting), models (Oryctolagus cuniculus, Capra hircus, Mus (mouse), HeLa), and statistics (Citations: 100, Downloads: 9,808). Numbered callouts 1-7 point to: 1. Protocol label, 2. Article title, 3. Article title, 4. Abstract snippet, 5. Techniques list, 6. Citations and Downloads, 7. Video availability checkbox.

- 1 Article type
- 2 Source and date of publication
- 3 Title and authors
- 4 Abstract snippet
- 5 Techniques and organisms used, automatically extracted by our indexing tools
- 6 Number of citations and downloads, based on data from Altmetrics or Bookmetrix
- 7 You will also be able to see when a video is available within the protocol or method

Further Evaluation using Article Evaluation Pages

Article evaluation pages provide a more detailed overview of the key information needed for evaluation and comparison of protocols and methods, including:

The screenshot shows an article evaluation page for "A sentinel protein assay for simultaneously quantifying cellular processes" by Martin Soste et al. (2018). The page includes an abstract, related articles, supplementary information, keywords, a citation graph, and recent citations. Numbered callouts 1-7 point to: 1. Abstract, 2. Figures and Videos section, 3. Related articles, 4. Supplementary information, 5. Citations (37) and Keywords, 6. Recent citations, 7. Latest Citations.

- 1 **Abstract:** as published with the original article
- 2 **Figures and videos:** here you can see all of the figures and videos associated with this article.
- 3 **Related articles:** helps you discover more protocols and methods using the same research technique
- 4 **Supplementary information:** completing the protocol, this can include any texts, figures, videos or databases provided by the author
- 5 **Keywords:** highlight all the techniques and models used in that paper
- 6 **Citation graph:** this shows the total number of citations as well as the citation trend of this particular article over the last 5 years.
- 7 **Latest Citations:** a list of the last 3 articles that cited this particular protocol or method.

Accessing the full-text content

Clicking on the Full text button (24) within the article profile page will take you through to the content on its source platform – nature.com for content from *Nature Protocols* and *Nature Methods* or SpringerLink for content from SpringerProtocols.

Please note that you will need to have a current subscription to access the full-text content from *Nature Protocols*, *Nature Methods* and SpringerProtocols (with the exception of some book titles). Please check with your librarian, or ask them to contact us if you cannot access the full-text content.

Need more support?

For additional training and information, or to request a demonstration, please contact: experiments@springernature.com

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