

CAS SCIFINDER<sup>n</sup>

# BETWEEN INQUIRY AND INNOVATION, THERE IS INSIGHT

Power your biology research with comprehensive literature to drive game-changing discoveries.




# Expand your literature review

## Access unparalleled biological content

As the volume of scientific information continues to grow across the life sciences landscape, finding exactly what you need—the connections amid the chaos—can be challenging.



Access more information than ever before through a single search with a simultaneous query of both PubMed and the world-renowned CAS Content Collection™. This all-inclusive search capability provides a more productive literature review that gets you back in the lab faster.

- Find 80+ million reference records, journals, patents, and more.
- Leverage PubMed’s MeSH indexing and citations to explain and support your research.
- Find sequences from across NCBI’s GenBank combined with the CAS REGISTRY® of biosequences content that includes 650+ million searchable proteins and nucleotide sequences.



**“The comprehensiveness of the CAS database is unparalleled and tools like CAS SciFinder® are robust and effective in their ability to mine that data.”**

R&D vice president/director, small business  
pharmaceuticals company  
TechValidate, TVID: 17E-012-6D1



Literature searching in CAS SciFinder<sup>®</sup> gives you combined access to PubMed and the CAS Content Collection.

The screenshot shows the 'Reference Detail' page for the document 'AVPdb: a database of experimentally validated antiviral peptides targeting medically important viruses'. The page is divided into two main sections: 'JOURNAL' and 'Reference Detail'. The 'JOURNAL' section lists the source as 'Nucleic Acids Research', Volume 42, Issue D1, and provides the DOI '10.1093/nar/gkt1191'. The 'Reference Detail' section includes the authors 'By: Qureshi, Abid; Thakur, Nishant; Tandon, Himani; Kumar, Manoj', a full-text abstract, and keywords 'database AVPdb antiviral peptide'. Navigation options like 'Substances (0)', 'Reactions (0)', 'Citing (66)', and 'Citation Map' are visible at the top.

Citation maps in CAS SciFinder<sup>®</sup> give you clear visibility into all the references cited in a document, as well as those references that cite it.

The screenshot displays the 'Citation Map' for the AVPdb document. The map is a network diagram where nodes represent documents and lines represent citation relationships. The central node is the root document, 'AVPdb: a database of experimentally validated antiviral peptides targeting medically important viruses'. Other nodes include 'Antimicrobial peptides of multicellular organisms', 'Antimicrobial and host-defense peptides as new anti-infective therapeutic strategies', 'Rates of evolutionary change in viruses: patterns and determinants', 'Designing antimicrobial peptides: form follows function', 'APD2: the updated antimicrobial peptide database and its application in peptide design', and 'AAindex: amino acid index database, progress report 2008'. A 'Citation Map Key' at the bottom indicates that purple dots represent documents cited by the root, and green dots represent documents that cite the root. The interface includes filters, a search bar, and navigation controls.



# Accelerate your research

## Identify the most promising biological targets

To successfully perform biological research, you need tools that connect you to the right information that helps you effectively interpret the results. With CAS SciFinder<sup>®</sup>, you can process and analyze information in a flash using BLAST, CDR, and Motif search algorithms.

Containing the most advanced relevance engine in the industry, our intuitive solution helps you search faster and smarter by anticipating your information needs, while advanced visualization, filtering, and analysis tools enable you to determine the specific focus of your research more effectively.

**"CAS SciFinder<sup>®</sup> helps us in experimental design because it allows us to gather previous research from our field or similar saving us time and money."**

Isidre Casals, molecular biologist, Universitat de Barcelona  
TechValidate, TVID: F15-2FF-0D0



Easily find regions of local similarity between protein or nucleotide sequences using the BLAST search capability within CAS SciFinder®.

**CAS SciFinder®** Substances Enter a query... Draw Search Star Clock User

Return to Home

**BLAST Search Details**

- Sequence Type: Protein
- Search Within: Proteins
- BLAST Algorithm: BLASTp-short
- NCBI Included: No
- Alignment Identity: -
- Query Coverage: 90%
- E-Value: 10
- Match with Gaps?: No
- Gap Costs: Existence 9 Extension 1
- Word Size: 2

**Bioscape Analysis**

Visually explore sequence similarity with a new tool. [Learn more about Bioscape.](#)

Create Bioscape Analysis

Filter by

E-Value

0 to 10<sup>6</sup>

**Biosequences** (1,000) Sort: Subject Coverage View: Expanded

References

Query Details TFTSDLSKQMEEEAVRLFIEIXLKNGGPS View More

801 Alignment Identity: 96.43%

Query 1 28

Subject 1 654

Matches: 27 Mismatches: 1

View Less

Alignment Subject References

Alignment Data

BLAST Score: 200

E-Value: 2.52855e-20

Q 1 TFTSDLSKQM EEEAVRLFIE XLKNGGPS 28

|||||

S 620 TETSDSLKQM EEEAVRLFIE XLKNGGPS 647

Specialized biosequences searching, such as CDR segments, are shown in easy to interpret visualizations that help connect you to the information you seek quickly.

**CAS SciFinder®** Substances Enter a query... Draw Search Star Clock User

Return to Home

**CDR Segments**

Select a segment below to view individual or intersecting CDR results.

CDR1 CDR2 CDR3

157

Apply Reset Segments

**Bioscape Analysis**

Visually explore sequence similarity with a new tool. [Learn more about Bioscape.](#)

Create Bioscape Analysis

Filter by

E-Value

0 to 10<sup>6</sup>

**Biosequences** (157) Sort: Subject Coverage View: Collapsed

References

Query Details View More

101 Alignment Identity: 96.3%

CDR1 CDR3

1 11 1 9

Subject 1 483

CDR2

1 7

View More

102 Alignment Identity: 96.3%

CDR1 CDR3

1 11 1 9

Subject 1 484

# Get your best search results faster

## Conduct pinpoint research with indexed content

Human curation helps you quickly achieve the searches that are most relevant to your research, assuring the right direction for your research from the start.

Within CAS SciFinder<sup>®</sup> you'll find human-curated journals and patents in 50+ languages, including many not found in other databases. Through the work of CAS scientists, we standardize the complex terminology found in these scientific publications, so that every BioMed and life sciences citation and abstract accessed contains cited and citing references, legal status, and direct to full-text publications.

**"When I have a scientific question, I ALWAYS find answers with the help of CAS."**

Scientist, non-profit  
TechValidate, TVID: A4B-1E9-176



Every document is indexed by CAS scientists to provide even more detailed information that supplements MEDLINE subject headings.

The screenshot displays the CAS SciFinder interface for a document with the reference ID 10.1093/nar/gkt1191. The interface is divided into several sections:

- Database Information:** ISSN-L: 0305-1048, AN: 2014:8644, CAN: 160:94564, PubMed ID: 24285301, and CPlus and MEDLINE.
- Company/Organization:** Bioinformatics Centre, Council of Scientific and Industrial Research, Institute of Microbial Technology, Chandigarh 160036, India.
- Publisher:** Oxford University Press.
- Language:** English.
- Full Text:** A dropdown menu is set to "Full Text".
- Expand All | Collapse All:** A link to toggle the view of the subject headings.
- Concepts:** A grid of subject headings including Antiviral agents, Internet, Bioinformatics, Peptides (Role: Properties; Therapeutic Use), Databases (Modifier: AVPdb), and Viruses.
- MEDLINE® Medical Subject Headings:** A grid of subject headings including Antiviral Agents (Qualifier: chemistry; pharmacology), Internet, Databases, Chemical, Peptides (Qualifier: chemistry; pharmacology), and Software.
- Cited Documents:** A button labeled "View Cited Documents (34)" and a list of four references: 1) Domingo, E; Vet Res, 2010, 41, 38; 2) Nichol, S; Proc Natl Acad Sci USA, 2000, 97, 12411; 3) Duffy, S; Nat Rev Genet, 2008, 9, 267; 4) Bacon, T; Clin Microbiol Rev, 2003, 16, 114.



CAS is a leader in scientific information solutions, partnering with innovators around the world to accelerate scientific breakthroughs. CAS employs over 1,400 experts who curate, connect, and analyze scientific knowledge to reveal unseen connections. For over 100 years, scientists, patent professionals, and business leaders have relied on CAS solutions and expertise to provide the hindsight, insight, and foresight they need so they can build upon the learnings of the past to discover a better future. CAS is a division of the American Chemical Society.

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