

Resource Summary Report

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CAPS Database

RRID:SCR_006862

Type: Tool

Proper Citation

CAPS Database (RRID:SCR_006862)

Resource Information

URL: <http://www.bioinsilico.org/cgi-bin/CAPSDB/staticHTML/home>

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Description: It is a structural classification of helix-cappings or caps compiled from protein structures. Caps extracted from protein structures have been structurally classified based on geometry and conformation and organized in a tree-like hierarchical classification where the different levels correspond to different properties of the caps. CASP-DB is fully browsable and searchable and is regularly updated. The regions of the polypeptide chain immediately preceding or following a helix are known as Nt- and Ct cappings, respectively. Cappings play a central role stabilizing helices due to lack of intrahelical hydrogen bonds in the first and last turn. Sequence patterns of amino acid type preferences have been derived for cappings but the structural motifs associated to them are still unclassified. CAPS-DB is a database of clusters of structural patterns of different capping types. The clustering algorithm is based in the geometry and the space conformation of these regions. CAPS-DB is a relational database that allows the user to search, browse, inspect and retrieve structural data associated to cappings. The contents of CAPS-DB might be of interest to a wide range of scientist covering different areas such as protein design and engineering, structural biology and bioinformatics. CapsDB v4.0 * PDB structures: 4591 * Number of clusters: 859 * Number of caps: 31452

Abbreviations: CAPS-DB

Synonyms: CAPS - Database

Resource Type: data or information resource, database

Defining Citation: [PMID:22021380](#)

Keywords: structural classification, helix-capping, protein engineering, clustering, bio.tools

Funding: Research Councils United Kingdom Academic Fellow scheme ;
Leeds Institute of Molecular Medicine ;
MICINN and FEDER BIO2011-22568

Resource Name: CAPS Database

Resource ID: SCR_006862

Alternate IDs: biotools:caps-db, nlx_149414

Alternate URLs: <http://www.bioinsilico.org/CAPSDB>, <https://bio.tools/caps-db>

Record Creation Time: 20220129T080238+0000

Record Last Update: 20260912T200144+0000

Ratings and Alerts

No rating or validation information has been found for CAPS Database.

No alerts have been found for CAPS Database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Segura J, et al. (2012) CAPS-DB: a structural classification of helix-capping motifs. Nucleic acids research, 40(Database issue), D479.

Galperin MY, et al. (2012) The 2012 Nucleic Acids Research Database Issue and the online Molecular Biology Database Collection. Nucleic acids research, 40(Database issue), D1.