

Resource Summary Report

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HotRegion - A Database of Cooperative Hotspots

RRID:SCR_006022

Type: Tool

Proper Citation

HotRegion - A Database of Cooperative Hotspots (RRID:SCR_006022)

Resource Information

URL: <http://prism.cccb.ku.edu.tr/hotregion/index.php>

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Description: Hot spots are energetically important residues at protein interfaces and they are not randomly distributed across the interface but rather clustered. These clustered hot spots form hot regions. Hot regions are important for the stability of protein complexes, as well as providing specificity to binding sites. HotRegion provides the hot region information of the interfaces by using predicted hot spot residues, and structural properties of these interface residues such as pair potentials of interface residues, accessible surface area (ASA) and relative ASA values of interface residues of both monomer and complex forms of proteins. Also, the 3D visualization of the interface and interactions among hot spot residues are provided. The number of interfaces in the database is 147909 and still growing.

Abbreviations: HotRegion

Synonyms: HotRegion: a database of predicted hot spot clusters, HotRegion: A database of cooperative hot spots

Resource Type: data or information resource, database

Defining Citation: [PMID:22080558](#)

Keywords: residue, chain, complex, monomer, pair potential, hotspot, hotregion, accessible surface area, protein, bio.tools

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Resource Name: HotRegion - A Database of Cooperative Hotspots

Resource ID: SCR_006022

Alternate IDs: nlx_151420, biotools:hotregion

Alternate URLs: <https://bio.tools/hotregion>

Record Creation Time: 20220129T080233+0000

Record Last Update: 20260905T133133+0000

Ratings and Alerts

No rating or validation information has been found for HotRegion - A Database of Cooperative Hotspots.

No alerts have been found for HotRegion - A Database of Cooperative Hotspots.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Lechuga GC, et al. (2021) SARS-CoV-2 Proteins Bind to Hemoglobin and Its Metabolites. International journal of molecular sciences, 22(16).

Syahbanu F, et al. (2020) Molecular analysis of a fibrin-degrading enzyme from Bacillus subtilis K2 isolated from the Indonesian soybean-based fermented food moromi. Molecular biology reports, 47(11), 8553.

Chandler JC, et al. (2017) Understanding Insulin Endocrinology in Decapod Crustacea: Molecular Modelling Characterization of an Insulin-Binding Protein and Insulin-Like Peptides in the Eastern Spiny Lobster, Sagmariasus verreauxi. International journal of molecular sciences, 18(9).

Hay D, et al. (2016) Genetic dissection of the ??-globin super-enhancer in vivo. Nature genetics, 48(8), 895.

Sangphukieo A, et al. (2015) Computational Design of Hypothetical New Peptides Based on a Cyclotide Scaffold as HIV gp120 Inhibitor. PloS one, 10(11), e0139562.