Resource Summary Report

Generated by <u>dkNET</u> on May 17, 2025

SCOPPI: Structural Classification of Protein-Protein Interfaces

RRID:SCR_007916 Type: Tool

Proper Citation

SCOPPI: Structural Classification of Protein-Protein Interfaces (RRID:SCR_007916)

Resource Information

URL: http://www.scoppi.org

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Description: SCOPPI is a database of all domain-domain interactions and their interfaces derived from PDB structure files and SCOP domain definitions. Interfaces are classified according to the geometry of the domain associations and are annotated with various interaction characteristics. Screenshots of all interfaces are available. More than 4,000 distinct types of domain interfaces are collected from Protein Quaternary Structure Server and Protein Data Bank. Given a pair of interacting domains, we define face as the set of interacting residues in each single domain and the pair of interacting faces as an interface. We investigate how the geometry of interfaces relates to a network of interacting protein families, such as how many different binding orientations are possible between two families or whether a family uses distinct surfaces or the same surface when the family has diverse interaction partners from various families. We show there are, on average, 1.2-1.9 different types of interfaces between interacting domains and a significant number of family pairs associate in multiple orientations. In general, a family tends to use distinct faces for each partner when the family has diverse interaction partners. Each face is highly specific to its interaction partner and the binding orientation. The relative positions of interface residues are generally well conserved within the same type of interface even between remote homologs.

Synonyms: SCOPPI

Resource Type: database, data or information resource

Funding:

Resource Name: SCOPPI: Structural Classification of Protein-Protein Interfaces

Resource ID: SCR_007916

Record Creation Time: 20220129T080244+0000

Record Last Update: 20250517T055843+0000

Ratings and Alerts

No rating or validation information has been found for SCOPPI: Structural Classification of Protein-Protein Interfaces.

No alerts have been found for SCOPPI: Structural Classification of Protein-Protein Interfaces.

Data and Source Information

Source: <u>SciCrunch Registry</u>

Usage and Citation Metrics

We found 1 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>dkNET</u>.

Rückert F, et al. (2010) Examination of apoptosis signaling in pancreatic cancer by computational signal transduction analysis. PloS one, 5(8), e12243.