

Resource Summary Report

Generated by [dkNET](#) on Sep 4, 2026

KNOTTIN database

RRID:SCR_013263

Type: Tool

Proper Citation

KNOTTIN database (RRID:SCR_013263)

Resource Information

URL: <http://knottin.cbs.cnrs.fr/>

Proper Citation: KNOTTIN database (RRID:SCR_013263)

Description: The KNOTTIN database provides standardized data on the knottin structural family (also referred to as the Inhibitor Cystine Knot (ICK) motif/family/fold). Knottins are intriguing miniproteins with strong potential in drug design. This knot is achieved when one disulfide bridge crosses the macrocycle formed by the two other disulfides and the interconnecting backbone.

Abbreviations: KNOTTIN Database

Resource Type: data or information resource, database

Resource Name: KNOTTIN database

Resource ID: SCR_013263

Alternate IDs: nif-0000-03074

Record Creation Time: 20220129T080315+0000

Record Last Update: 20260904T000327+0000

Ratings and Alerts

No rating or validation information has been found for KNOTTIN database.

No alerts have been found for KNOTTIN database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Gomes GDS, et al. (2023) Carboxypeptidase inhibitors from Solanaceae as a new subclass of pathogenesis related peptide aiming biotechnological targets for plant defense. *Frontiers in molecular biosciences*, 10, 1259026.

Luo J, et al. (2021) Molecular diversity and evolutionary trends of cysteine-rich peptides from the venom glands of Chinese spider *Heteropoda venatoria*. *Scientific reports*, 11(1), 3211.

Camperi SA, et al. (2020) Synthetic peptides to produce antivenoms against the Cys-rich toxins of arachnids. *Toxicon: X*, 6, 100038.

Diniz MRV, et al. (2018) An overview of *Phoneutria nigriventer* spider venom using combined transcriptomic and proteomic approaches. *PloS one*, 13(8), e0200628.

Karaki L, et al. (2016) Genome-wide analysis identifies gain and loss/change of function within the small multigenic insecticidal Albumin 1 family of *Medicago truncatula*. *BMC plant biology*, 16, 63.

Islam SM, et al. (2015) PredSTP: a highly accurate SVM based model to predict sequential cystine stabilized peptides. *BMC bioinformatics*, 16, 210.

Colinet D, et al. (2014) Identification of the main venom protein components of *Aphidius ervi*, a parasitoid wasp of the aphid model *Acyrtosiphon pisum*. *BMC genomics*, 15(1), 342.

Li H, et al. (2013) Asteropsin A: an unusual cystine-crosslinked peptide from porifera enhances neuronal Ca²⁺ influx. *Biochimica et biophysica acta*, 1830(3), 2591.

Gracy J, et al. (2010) Optimizing structural modeling for a specific protein scaffold: knottins or inhibitor cystine knots. *BMC bioinformatics*, 11, 535.

Kolmar H, et al. (2009) Biological diversity and therapeutic potential of natural and engineered cystine knot miniproteins. *Current opinion in pharmacology*, 9(5), 608.

Patel SP, et al. (2005) Transient outward potassium current, 'I_{to}', phenotypes in the mammalian left ventricle: underlying molecular, cellular and biophysical mechanisms. *The Journal of physiology*, 569(Pt 1), 7.

Galperin MY, et al. (2005) The Molecular Biology Database Collection: 2005 update. *Nucleic acids research*, 33(Database issue), D5.