

Resource Summary Report

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PRED-TMR2

RRID:SCR_006205

Type: Tool

Proper Citation

PRED-TMR2 (RRID:SCR_006205)

Resource Information

URL: <http://athina.biol.uoa.gr/PRED-TMR2/>

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Description: A web server that classifies proteins into two classes from their sequences alone: the membrane protein class and the non-membrane protein class. This may be important in the functional assignment and analysis of open reading frames (ORF"s) identified in complete genomes and, especially, those ORF"s that correspond to proteins with unknown function. The network has a simple hierarchical feed-forward topology and a limited number of neurons which makes it very fast. By using only information contained in 11 protein sequences, the method was able to identify, with 100% accuracy, all membrane proteins with reliable topologies collected from several papers in the literature. Applied to a test set of 995 globular, water-soluble proteins, the neural network classified falsely 23 of them in the membrane protein class (97.7% of correct assignment). The method was also applied to the complete SWISS-PROT database with considerable success and on ORF"s of several complete genomes. The neural network developed was associated with the PRED-TMR algorithm (Pasquier,C., Promponas,V.J., Palaios,G.A., Hamodrakas,J.S. and Hamodrakas,S.J., 1999) in a new application package called PRED-TMR2.

Abbreviations: PRED-TMR2

Synonyms: PRED-TMR2: Prediction of Transmembrane regions in proteins

Resource Type: analysis service resource, data analysis service, production service resource, service resource

Defining Citation: [PMID:10469822](#)

Keywords: prediction, transmembrane, protein, algorithm, neural network, classification, transmembrane protein, protein classification, membrane protein, protein structure

Funding: European Union ERBFMRXCT960019

Resource Name: PRED-TMR2

Resource ID: SCR_006205

Alternate IDs: nlx_151766

Record Creation Time: 20220129T080234+0000

Record Last Update: 20260905T133134+0000

Ratings and Alerts

No rating or validation information has been found for PRED-TMR2.

No alerts have been found for PRED-TMR2.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Kim KH, et al. (2009) TmpL, a transmembrane protein required for intracellular redox homeostasis and virulence in a plant and an animal fungal pathogen. PLoS pathogens, 5(11), e1000653.