

Resource Summary Report

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X2K Web

RRID:SCR_023624

Type: Tool

Proper Citation

X2K Web (RRID:SCR_023624)

Resource Information

URL: <https://maayanlab.cloud/X2K>

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Description: Web service to predict involvement of upstream cell signaling pathways, given signature of differentially expressed genes. Used to linking expression signatures to upstream cell signaling networks.

Abbreviations: X2K

Synonyms: eXpression2Kinases (X2K) Web

Resource Type: data access protocol, software resource, web service

Defining Citation: [PMID:29800326](#)

Keywords: predicts involvement of upstream cell signaling pathways, differentially expressed genes, linking expression signatures, upstream cell signaling networks,

Funding: NCI U24 CA224260;
NHLBI U54 HL127624;
NIH Office of the Director OT3 OD025467

Availability: Free, Freely available

Resource Name: X2K Web

Resource ID: SCR_023624

Alternate URLs: https://github.com/MaayanLab/x2k_web

Record Creation Time: 20230527T050216+0000

Record Last Update: 20260912T200040+0000

Ratings and Alerts

No rating or validation information has been found for X2K Web.

No alerts have been found for X2K Web.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 25 mentions in open access literature.

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

Piroozmand S, et al. (2026) Suboptimal Responses to Anti-VEGF in Retinal Neurovascular Diseases: Linking Aging and Alternative Angioinflammatory Pathways. *Investigative ophthalmology & visual science*, 67(5), 4.

Aljasir MA, et al. (2026) An Integrated Network Biology and Molecular Dynamics Approach Identifies CD44 as a Promising Therapeutic Target in Multiple Sclerosis. *Pharmaceuticals (Basel, Switzerland)*, 19(2).

Zaimi M, et al. (2026) Gene Expression as a Guide for the Development of Novel Therapies in Hypertensive and Diabetic Kidney Disease. *Journal of clinical medicine*, 15(2).

Bokhari BT, et al. (2026) System biology and network-based approach to identify the therapeutic signatures and potential inhibitors against polycystic lipomembranous osteodysplasia with Sclerosing Leukoencephalopathy. *PloS one*, 21(2), e0343274.

Kafita D, et al. (2026) Decoding the dark genome reveals its organisation into modular disease networks. *Scientific reports*, 16(1).

Fatima T, et al. (2025) Unlocking the Antioxidant, Enzyme Inhibitory and Acaricidal Potential of *Azadirachta indica* Phytoconstituents Using In Vitro and In Silico Approaches. *Food science & nutrition*, 13(12), e71204.

Dos Santos FM, et al. (2025) Dynamic Cellular Proteome Remodeling during SARS-CoV-2 Infection. Identification of Plasma Protein Readouts. *Journal of proteome research*, 24(1), 171.

Rikhari D, et al. (2025) Whole transcriptome analysis identifies ALB-EEF1A1 fusion as a novel biomarker in metastatic colorectal cancer. *Cancer pathogenesis and therapy*, 3(5), 420.

Liu H, et al. (2025) Optineurin Cooperates With NRF2 to Regulate Tooth Root Morphogenesis by Controlling Mitochondrial Dynamics and Apoptosis. *Cell proliferation*, 58(5), e13799.

- Elbatarny M, et al. (2025) Systems biology approaches investigating mitochondrial dysfunction in cyanotic heart disease: a systematic review. *EBioMedicine*, 118, 105839.
- Payva F, et al. (2025) Systems biology approach delineates critical pathways associated with papillary thyroid cancer: a multi-omics data analysis. *Thyroid research*, 18(1), 15.
- Ayaz H, et al. (2025) Exploring the hub gene CERS6 as a therapeutic target in type 1 diabetes through a bioinformatics and network analyst approach. *Scientific reports*, 16(1), 428.
- Ajiboye BO, et al. (2024) In silico exploration of anti-prostate cancer compounds from differential expressed genes. *BMC urology*, 24(1), 138.
- Bhuiyan P, et al. (2024) System biology approaches to identify hub genes linked with ECM organization and inflammatory signaling pathways in schizophrenia pathogenesis. *Heliyon*, 10(3), e25191.
- Alharbi M, et al. (2024) The ameliorative effect of pioglitazone against colistin-induced nephrotoxicity is mediated by inhibition of NF- κ B and restoration of Nrf2 signaling: An integrative bioinformatics prediction-guided in vitro study. *PloS one*, 19(12), e0314092.
- Liu L, et al. (2024) Suppression of DNMT1 combined with ATM or ATR inhibitor as a therapeutic combination of acute myeloid leukemia. *Anti-cancer drugs*, 35(3), 251.
- Wang M, et al. (2024) KIF18A and CDK1 as combined therapeutic targets in cervical and endometrial carcinomas: based on bioinformatics analysis and in vitro experiments. *Translational cancer research*, 13(12), 6880.
- Wang J, et al. (2024) Targeting c-Myc transactivation by LMNA inhibits tRNA processing essential for malate-aspartate shuttle and tumour progression. *Clinical and translational medicine*, 14(5), e1680.
- Mahjoubin-Tehran M, et al. (2024) The differential expression of adipose tissue genes in short, medium and long-term periods after bariatric surgery. *Scientific reports*, 14(1), 19991.
- Tavassolifar MJ, et al. (2023) New insights into extracellular and intracellular redox status in COVID-19 patients. *Redox biology*, 59, 102563.