Resource Summary Report

Generated by dkNET on May 11, 2025

SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation

RRID:SCR_018759
Type: Tool

Proper Citation

SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation (RRID:SCR_018759)

Resource Information

URL: https://marks.hms.harvard.edu/sars-cov-2/

Proper Citation: SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation (RRID:SCR_018759)

Description: Portal for quantitative models using virus sequence variation to predict mutation effects for SARS-CoV-2 proteins, alignments to homologs in other viruses, 3D structures, evolutionarily coupled residues and structure predictions.

Resource Type: data or information resource, disease-related portal, portal, topical portal

Keywords: SARS-CoV-2, in silico mutation scan, 3D contact prediction, COVID-19, virus sequence variation, mutation prediction, SARS-CoV-2 protein, alignment, 3D structure, structure prediction

Related Condition: COVID-19

Funding:

Availability: Free, Available for download, Freely available

Resource Name: SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation

Resource ID: SCR_018759

Record Creation Time: 20220129T080341+0000

Record Last Update: 20250509T060306+0000

Ratings and Alerts

No rating or validation information has been found for SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation.

No alerts have been found for SARS-CoV-2 mutation effects and 3D structure prediction from sequence covariation.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 99 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET.

Nazario-Toole AE, et al. (2022) Whole-genome Sequencing of SARS-CoV-2: Using Phylogeny and Structural Modeling to Contextualize Local Viral Evolution. Military medicine, 187(1-2), e130.

Martischang R, et al. (2022) Severe acute respiratory coronavirus virus 2 (SARS-CoV-2) seroconversion and occupational exposure of employees at a Swiss university hospital: A large longitudinal cohort study. Infection control and hospital epidemiology, 43(3), 326.

Dai W, et al. (2022) Design, Synthesis, and Biological Evaluation of Peptidomimetic Aldehydes as Broad-Spectrum Inhibitors against Enterovirus and SARS-CoV-2. Journal of medicinal chemistry, 65(4), 2794.

Cione E, et al. (2021) Neuron-specific enolase serum levels in COVID-19 are related to the severity of lung injury. PloS one, 16(5), e0251819.

Le Bert N, et al. (2021) Highly functional virus-specific cellular immune response in asymptomatic SARS-CoV-2 infection. The Journal of experimental medicine, 218(5).

Yapici-Eser H, et al. (2021) Neuropsychiatric Symptoms of COVID-19 Explained by SARS-CoV-2 Proteins' Mimicry of Human Protein Interactions. Frontiers in human neuroscience, 15, 656313.

Vassilopoulou E, et al. (2021) Breastfeeding and COVID-19: From Nutrition to Immunity. Frontiers in immunology, 12, 661806.

Cotugno N, et al. (2021) Virological and immunological features of SARS-CoV-2-infected children who develop neutralizing antibodies. Cell reports, 34(11), 108852.

Cheemarla NR, et al. (2021) Dynamic innate immune response determines susceptibility to SARS-CoV-2 infection and early replication kinetics. The Journal of experimental medicine, 218(8).

Alagu Lakshmi S, et al. (2021) Ethnomedicines of Indian origin for combating COVID-19 infection by hampering the viral replication: using structure-based drug discovery approach. Journal of biomolecular structure & dynamics, 39(13), 4594.

Schubert G, et al. (2021) The African Network for Improved Diagnostics, Epidemiology and Management of common infectious Agents. BMC infectious diseases, 21(1), 539.

Sommer AP, et al. (2021) Tutankhamun's Antimalarial Drug for Covid-19. Drug research, 71(1), 4.

Song J, et al. (2021) The comprehensive study on the therapeutic effects of baicalein for the treatment of COVID-19 in vivo and in vitro. Biochemical pharmacology, 183, 114302.

Ioannou GN, et al. (2021) Development of COVIDVax Model to Estimate the Risk of SARS-CoV-2-Related Death Among 7.6 Million US Veterans for Use in Vaccination Prioritization. JAMA network open, 4(4), e214347.

Neches RY, et al. (2021) Atypical Divergence of SARS-CoV-2 Orf8 from Orf7a within the Coronavirus Lineage Suggests Potential Stealthy Viral Strategies in Immune Evasion. mBio, 12(1).

Malik YS, et al. (2021) Evolutionary and codon usage preference insights into spike glycoprotein of SARS-CoV-2. Briefings in bioinformatics, 22(2), 1006.

Singh DK, et al. (2021) Responses to acute infection with SARS-CoV-2 in the lungs of rhesus macaques, baboons and marmosets. Nature microbiology, 6(1), 73.

Rian K, et al. (2021) Mechanistic modeling of the SARS-CoV-2 disease map. BioData mining, 14(1), 5.

Tanaka Y, et al. (2021) Dynamic changes in gene-to-gene regulatory networks in response to SARS-CoV-2 infection. Scientific reports, 11(1), 11241.

Chen Y, et al. (2021) Proteomic Analysis Identifies Prolonged Disturbances in Pathways Related to Cholesterol Metabolism and Myocardium Function in the COVID-19 Recovery Stage. Journal of proteome research, 20(7), 3463.