# Resource Summary Report

Generated by NIF on May 4, 2025

## Antibody Prediction Toolbox

RRID:SCR_022094
Type: Tool

### Proper Citation

Antibody Prediction Toolbox (RRID:SCR_022094)

### Resource Information

**URL:** http://opig.stats.ox.ac.uk/webapps/newsabdab/sabpred/

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**Description:** Web tool as structure based antibody prediction server. Collection of computational tools that make predictions about properties of antibodies, focusing on their structures. Single platform containing multiple applications which can: number and align sequences; automatically generate antibody variable fragment homology models; annotate such models with estimated accuracy alongside sequence and structural properties including potential developability issues; predict paratope residues; and predict epitope patches on protein antigens.

**Abbreviations:** SAbPred

**Synonyms:** The Antibody Prediction Toolbox

**Resource Type:** simulation software, software application, web service, data access protocol, software resource

**Defining Citation:** DOI:10.1093/nar/gkw361

**Keywords:** structure based antibody prediction server, antibody prediction server, antibodies properties prediction

**Funding:** Engineering and Physical Research council

**Availability:** Free, Freely available

**Resource Name:** Antibody Prediction Toolbox

**Resource ID:** SCR_022094

**Record Creation Time:** 20220421T050138+0000

**Record Last Update:** 20250503T060955+0000

## Ratings and Alerts

No rating or validation information has been found for Antibody Prediction Toolbox.

No alerts have been found for Antibody Prediction Toolbox.

## Data and Source Information

**Source:** SciCrunch Registry

## Usage and Citation Metrics

We found 16 mentions in open access literature.

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


Tang WK, et al. (2024) Multistage protective anti-CelTOS monoclonal antibodies with cross-species sterile protection against malaria. Nature communications, 15(1), 7487.

Rossmueller G, et al. (2024) Integrating In Silico and In Vitro Tools for Optimized Antibody Development-Design of Therapeutic Anti-oxMIF Antibodies. Antibodies (Basel, Switzerland), 13(4).

Mitchell KG, et al. (2023) High-volume hybridoma sequencing on the NeuroMabSeq platform enables efficient generation of recombinant monoclonal antibodies and scFvs for neuroscience research. Scientific reports, 13(1), 16200.

Mitchell KG, et al. (2023) NeuroMabSeq: high volume acquisition, processing, and curation of hybridoma sequences and their use in generating recombinant monoclonal antibodies and scFvs for neuroscience research. bioRxiv : the preprint server for biology.

Luo M, et al. (2023) Structural insights into broadly neutralizing antibodies elicited by hybrid immunity against SARS-CoV-2. Emerging microbes & infections, 12(1), 2146538.

Abanades B, et al. (2023) ImmuneBuilder: Deep-Learning models for predicting the structures of immune proteins. Communications biology, 6(1), 575.

Wong SWK, et al. (2022) Conformational variability of loops in the SARS-CoV-2 spike protein. Proteins, 90(3), 691.

Dibrov A, et al. (2022) Molecular dynamics modeling of the Vibrio cholera Na+-translocating NADH:quinone oxidoreductase NqrB-NqrD subunit interface. Molecular and cellular biochemistry, 477(1), 153.

Liu L, et al. (2022) An antibody class with a common CDRH3 motif broadly neutralizes sarbecoviruses. Science translational medicine, 14(646), eabn6859.

Chang MR, et al. (2022) IgG-like bispecific antibodies with potent and synergistic neutralization against circulating SARS-CoV-2 variants of concern. Nature communications, 13(1), 5814.

Gao N, et al. (2022) Development of Neutralization Breadth against Diverse HIV-1 by Increasing Ab-Ag Interface on V2. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 9(15), e2200063.

Doyle MP, et al. (2021) Cooperativity mediated by rationally selected combinations of human monoclonal antibodies targeting the henipavirus receptor binding protein. Cell reports, 36(9), 109628.

Cerutti G, et al. (2021) Potent SARS-CoV-2 neutralizing antibodies directed against spike N-terminal domain target a single supersite. Cell host & microbe, 29(5), 819.

Moreira M, et al. (2021) A structure-based approach for the development of a bicyclic peptide acting as a miniaturized anti-CD55 antibody. International journal of biological macromolecules, 182, 1455.

Ahmad B, et al. (2021) Computational-Driven Epitope Verification and Affinity Maturation of TLR4-Targeting Antibodies. International journal of molecular sciences, 22(11).

Cannon DA, et al. (2019) Experimentally guided computational antibody affinity maturation with de novo docking, modelling and rational design. PLoS computational biology, 15(5), e1006980.