Kotai Antibody Builder: Automated, high-resolution structural modeling of antibodies.

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### Kotai Antibody Builder: Automated, high-resolution structural modeling of antibodies.

<table>
<thead>
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<td>Yamashita, K [2], Ikeda K [3], Amada K [4], Liang S [5], Tsuchiya Y [6], Nakamura H [7], Shirai H [8], Standley DM [9]</td>
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</tbody>
</table>

**Abstract**

Kotai Antibody Builder is a web service for tertiary structural modeling of antibody variable regions. It consists of three main steps: Hybrid template selection by sequence alignment and canonical rules, 3D rendering of alignments, and CDR-H3 loop modeling. For the last step, in addition to rule-based heuristics used to build the initial model, a refinement option is available that uses fragment assembly followed by knowledge-based scoring. Using targets from the Second Antibody Modeling Assessment (AMA-II), we demonstrate that Kotai Antibody Builder generates models with an overall accuracy equal to that of the best-performing semi-automated predictors using expert knowledge. Availability: Kotai Antibody Builder is available at [http://kotaiab.org](http://kotaiab.org) CONTACT: standley [at] ifrec [dot] osaka-u [dot] ac [dot] jp.

**DOI**


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**Links:**

[1] [http://www.antibodychain.com/content/kotai_antibody_builder_automated_high_resolution_structural_modeling_antibodies](http://www.antibodychain.com/content/kotai_antibody_builder_automated_high_resolution_structural_modeling_antibodies)
[10] [http://kotaiab.org](http://kotaiab.org)
[11] [http://dx.doi.org/10.1093/bioinformatics/btu510](http://dx.doi.org/10.1093/bioinformatics/btu510)