

# Antibody Assembler (Bulk and Multispecific)

## Drag-and-Drop mAb Rebuilding, Bispecific Engineering, and Zero-Error Formatting

Reconstruct full-length antibodies, bispecifics, and novel multi-chain formats with modular drag-and-drop ease. The Assembler eliminates manual copy-paste errors and reading-frame shifts in spreadsheets, providing dedicated Batch Mode for rebuilding hundreds of mAbs and Multispecific Mode for complex bi- and multi-specific architectures.

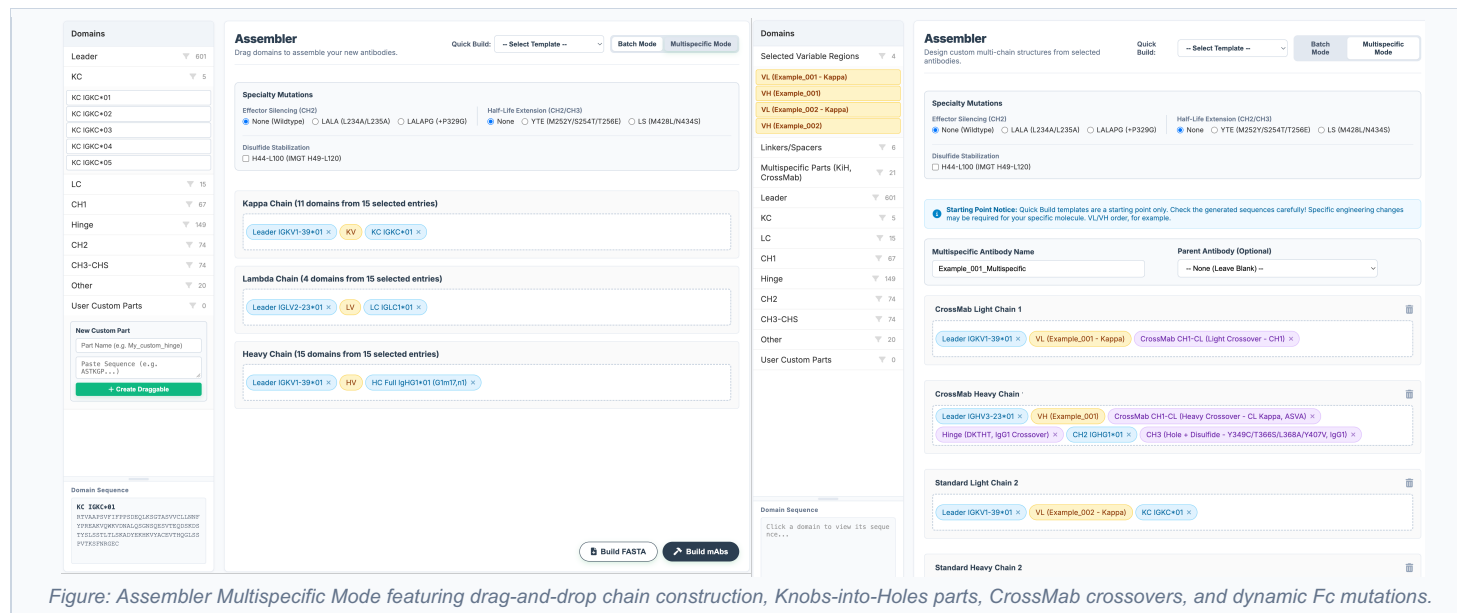


Figure: Assembler Multispecific Mode featuring drag-and-drop chain construction, Knobs-into-Holes parts, CrossMab crossovers, and dynamic Fc mutations.

### CORE CAPABILITIES

- **High-Throughput Batch Rebuilding:** Bulk-stitches constant domains (CL, CH1, Hinge, CH2, CH3) across hundreds of variable regions in a single click.
- **Multispecific Chain Architectures:** Drag-and-drop assembly for bispecifics, CrossMabs, scFv-Fcs, BiTEs, and asymmetrical multi-chain constructs.
- **Validated Engineered Parts Library:** Pre-loaded with Knobs-into-Holes (KiH) CH3 pairs, CH1-CL crossover parts, flexible linkers, and user custom parts.
- **Dynamic Fc Mutations:** 1-click insertion of clinically validated effector-silent and extended half-life mutations (LALA, LALAPG, YTE, LS).

### DEVELOPABILITY ADVANTAGE and IMPACT

- **Zero Human Copy-Paste Error:** Prevents catastrophic reading-frame shifts, missing junction residues, and transcription errors common in Excel.
- **Lineage Heritage and Fv Extraction:** Tracks parent-variant lineage relationships and enables instant reverse extraction of variable domains via Extract Fvs.
- **Persistent Construct Memory:** Reopening an assembled multispecific restores its exact layout, parts, chain configurations, and custom annotations.
- **Dual Export Formats:** Generates annotated FASTA sequence archives or instantly adds assembled antibodies as new active rows in the project grid.

**The AbLead Advantage:** Manual sequence assembly in spreadsheets is slow, tedious, and prone to costly frame-shift errors. AbLead's Assembler makes building full-length mAbs and complex bispecifics fast, reliable, and completely error-free.

**Accelerate Your Antibody Lead Optimization and De-Risk Development**

Request a Live Demo: [ablead@ketchemconsulting.com](mailto:ablead@ketchemconsulting.com) | Explore Platform: [ablead.ketchemconsulting.com](https://ablead.ketchemconsulting.com)

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