

B CELL CLONING ON THE BEACON® PLATFORM

B Cell Cloning

Through a collaboration with Berkeley Lights (BLI), ChemPartner has expanded our antibody discovery service offering to include B Cell cloning. The Beacon® platform, created by BLI, is capable of screening thousands of plasma B cells from immunized animals, which speeds up a traditionally time-consuming hybridoma process.

Plasma B cells secreting antibodies of interest are selected based on cell or bead-based binding and/or functional assays that are run serially or by multiplex format. Individual plasma B cells of interest are selectively exported for antibody sequencing. Using this platform, plasma B cells can be characterized in less than eight hours thus accelerating the antibody discovery process.

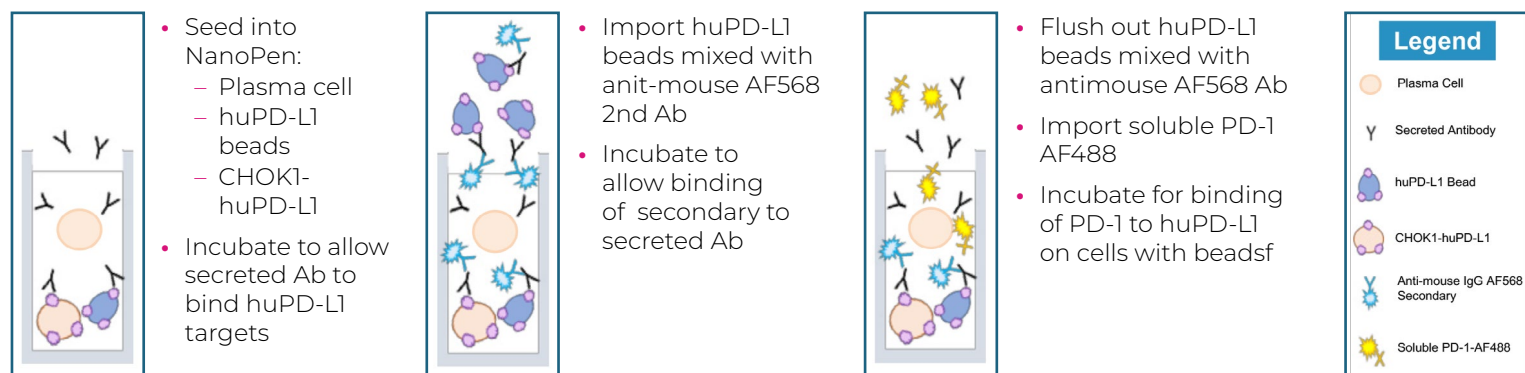


B Cell Cloning on the Beacon® Platform

- Reduce antibody screening time from 8-12 weeks to one day while interrogating more of the immune repertoire
- Potential to immunize WT or transgenic strains of mice
- Identify plasma B cells from immunized mice with target specific binding and functional activity
- Demonstrated functional blocking of receptor/ligand interactions using PD-L1/PD-1 as test case
- Additional assays such as Ca Flux, cytokine secretion and T cell activation are under development
- Good rate of recovery of single VH/VL sequences from successfully exported plasma B cells

Assays on Beacon®

	huPD-L1 Bead Binder CHOK1-huPD-L1 Binder huPD-L1 Bead Blocker CHOK1-huPD-L1 Blocker	huPD-L1 Bead Binder CHOK1-huPD-L1 Binder huPD-L1 Bead Non-Blocker CHOK1-huPD-L1 Non-Blocker	huPD-L1 Bead Binder CHOK1-huPD-L1 Non-Binder huPD-L1 Bead Blocker CHOK1-huPD-L1 Non-Blocker	huPD-L1 Bead Binder CHOK1-huPD-L1 Non-Binder huPD-L1 Bead Non-Blocker CHOK1-huPD-L1 Non-Blocker	huPD-L1 Bead Binder CHOK1-huPD-L1 Non-Binder huPD-L1 Bead Non-Blocker CHOK1-huPD-L1 Non-Blocker
Brightfield					
In-channel Binding <i>Secreted Antibody + AF568 Secondary</i>					
In-pen Binding <i>Secreted Antibody + AF568 Secondary</i>					
In-pen Blocking <i>Soluble PD-1 + AF488 Fluorophore</i>					



Typical Output for B Cell Cloning Workflow

