

# HYBRIDOMA DEVELOPMENT & MONOCLONAL ANTIBODY GENERATION

ChemPartner provides premium monoclonal antibody services. Our advanced hybridoma platform is validated by more than 60 therapeutic projects and a large number of reagent mAb projects.

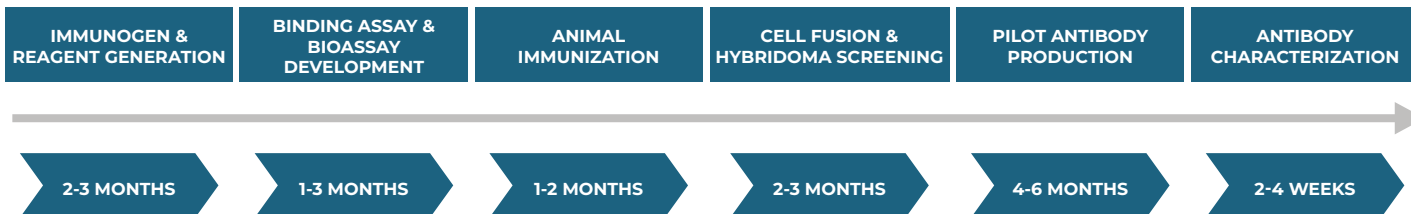
A number of key technologies including biofunctional protein production, over-expressing stable cell line generation, tolerance breaking technologies, success guaranteed hybridoma generation, high throughput cell-based screening and media compatible bioassay development, and protein analytics are integrated into this platform to ensure the success of mAb development for therapeutic candidates and broad range of assay applications.

We deliver antibodies to successfully meet the assay and product development specifications of our global biopharma clients. We are continuously improving our service platforms and expanding our capabilities in areas such as GPCR/ion-channel antibody and ADC antibody discovery.

## Featured Services

ANTIGEN & IMMUNOGEN	WELL-ESTABLISHED SCREENING ASSAYS	
<ul style="list-style-type: none"> <li>Recombinant protein production</li> <li>Stable cell line generation</li> <li>Peptide/compound synthesis and protein conjugation</li> <li>Plasmid DNA construction and bullet preparation</li> </ul>	<b>Binding Assays</b>	
	Flow cytometry (FACS)	Low-medium throughput
	Accumen microplate cytometry	High throughput
	Immunocytochemistry (ICC/IHC)	Low throughput
<b>Animal Immunization</b>	<b>Functional Assay</b>	
<ul style="list-style-type: none"> <li>SPF grade and multiple species/strain</li> <li>CPSJ mice with superior immune response</li> <li>Transgenic mice for fully human antibody generation</li> <li>Genetic immunization</li> </ul>	<ul style="list-style-type: none"> <li>Proliferation assay</li> <li>Apoptosis assay</li> <li>Migration assay</li> <li>Soft agar colony formation assay</li> <li>Cell signaling assay</li> <li>Luciferase reporter assay</li> <li>Cytokine releasing assay</li> <li>FLIPR assay</li> <li>Antibody internalization assay</li> <li>ADCC/CDC</li> <li>T cell stimulation assay</li> <li>Mixed lymphocyte reaction</li> <li>Cell adhesion assay</li> <li>Antigen specific T cell assay</li> </ul>	Assays were established with recombinant cell lines or endogenous cell lines and were successfully used in hybridoma screening and antibody characterization.
<b>Hybridoma Development</b>		
<ul style="list-style-type: none"> <li>PEG or electrofusion as desired</li> <li>Guaranteed success for positive hybridoma</li> <li>High throughput cell based screening assay</li> <li>Functional assay for early stage screening</li> </ul>		
<b>mAb Production</b>		
<ul style="list-style-type: none"> <li>Master or working cell banking</li> <li><i>In vitro</i> production and affinity purification</li> <li>Production scale of mgs – grams</li> <li>Purity &gt;95% and endotoxin at 1EU/mg or lower</li> </ul>		

# Project Timeline



## REAGENT PROJECTS 4-6 MONTHS

- SPF animals and multiple species/strains
- Specialized animal strains with superior immune response to conservative antigens
- Proprietary genetic immunization procedures
- Immune tolerance breaking technology available
- Fully human antibody generation from Transgenic mice
- Integrated services for therapeutic antibody discovery

## THERAPEUTIC PROJECTS 10-12 MONTHS

- SHigh throughput cell-based screening with Acumen microplate cytometer
- Well-established bioassays for hybridoma screening and mAb characterization
- Affinity assessment and rank
- Biophysical analysis available
- Manufacturability assessment available
- Guaranteed success in reagent antibody generation
  - Anti-idiotypic antibody
  - IHC, FACS, ELISA, WB

## Deliverables

- Screening data from all phase
- Selected hybridoma cell line
- Purified antibody with COA
- Antibody characterization data package
- Lead antibody panel

## Additional Services

- ADC development
- PK/PD assessment
- Large molecule PK expertise
- Toxicokinetic evaluation
- *In vivo* efficacy study

