

Monoclonal antibody programs take 4 – 8 months and range in cost from \$7,500 – \$15,000.

Project Initiation

The essential characteristics of the desired antibody will be determined along with a screening strategy for selecting hybridomas.

The immunogen or immunogens can be supplied by the client or Charis Diagnostics will help in their design and preparation.

Charis Diagnostics specializes in preparing small molecule-conjugates for immunizations. We have expertise in making antibodies to organic molecules including polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons, dioxins, etc.

Phase I Immunization and Evaluation

Mice will be immunized and serum titers determined. Test bleeds will be performed following immunizations until a strong serum titer is reached. Sufficient mice are started so that high titer mice are maintained throughout the project if multiple fusions are required.

Phase II Fusion

Fusions are performed using the spleens from two mice demonstrating a high titer response.

Phase III Screening

Typically, fifteen to twenty 96-well plates are generated per fusion. When the cell density is sufficient the plates are screened and positive hybridomas selected.

Phase IV Expansion and Screening

Hybridomas are expanded and screened for a second time. More stringent screening criteria can be used at this time to select the hybridomas producing antibodies that best meet essential characteristics.

Phase V Subcloning

Selected hybridomas are subcloned by limiting dilution.

Phase VI Expansion

Subclones are screened, expanded, and screened again. At this time the selected clones are expanded, frozen, and stored in liquid nitrogen.