CELL CULTURE-BASED METHOD

Isolate and culture B cells → Screen for neutralizing ability → PCR amplification of antibody heavy and light chains → Transfect and purify monoclonal antibody → Clone expression vectors → Sequence → Assay for neutralization

CHARTING THE COURSE: B cells grow in culture in individual wells over a layer of feeder cells, and culture media from cells is screened for antibody-binding specificity or neutralizing activity. Using PCR, researchers then amplify the heavy and light chain genes from antibodies of interest, clone them into expression vectors, and sequence them. The expression vectors are transfected into cells, and the resulting antibodies are purified and tested for activity.