immunoSEQ Assay
The inquiry to insight solution for profiling T- and B-cell receptors

Illuminate the adaptive immune system with bias-controlled multiplex PCR amplification, high-throughput sequencing and sophisticated bioinformatics.

KIT ASSAYS

Human
- TCRB T-cell receptor beta

SERVICE ASSAYS

Human
- TCRB T-cell receptor beta
- TCRG T-cell receptor gamma
- TCRA/D T-cell receptor alpha/delta
- IGH IG heavy chain
- IGK/L IG kappa/lambda

Mouse
- TCRB T-cell receptor beta
- IGH IG heavy chain
IMMUNOSEQUENCING

Unmask the identity of millions of T- and B-cell receptors in a single sample with the application of high-throughput sequencing.

Immunosequencing represents a grand-scale paradigm shift in the understanding of human immunology.

- Empowers research in immune-mediated diseases
- Leads to new prognostic and diagnostic biomarkers
- Elucidates mechanisms of action and response to therapeutics

WHAT WILL YOU DISCOVER?

The immunoSEQ® Assay can help you better understand any immune-mediated disease and supports a broad range of experimental questions.

- Clone tracking: Track T- and B-cell receptors over time or between sample types
- Repertoire properties: Identify highly expanded clones and diversity of lymphocyte populations
- Public clones: Determine shared receptor amino acid sequences

SOLVING THE PROBLEM OF PCR AMPLIFICATION BIAS

Employing highly optimized PCR primers and a synthetic immune repertoire with computational algorithms, the immunoSEQ Assay delivers accurate, quantifiable results.

Optimized PCR Primers + Synthetic Immune Repertoire + Sophisticated Bioinformatics

Primer concentrations adjusted to significantly reduce PCR amplification bias
Built-in controls assessed with every sample for true quantification
Corrects residual PCR amplification bias and quantifies T-cell or B-cell clones

**Deep experience**
**Widest range of loci**

With the immunoSEQ Service, our expert technicians sequence the DNA in your blood or tissue samples at our secure, state-of-the-art laboratory.

We provide everything from the shipping box to data analysis tools.

**3 SIMPLE STEPS**

1. **PREPARE AND SHIP SAMPLES**
   We will send you a customized shipping box along with detailed shipping instructions.

2. **WE SEQUENCE**
   Our expert technicians sequence your DNA samples in our secure, state-of-the-art lab.

3. **VISIT IMMUNOSEQ ANALYZER**
   Analyze and visualize your data using our powerful, cloud-based analytic toolset.

**Now amplifying discoveries locally**

Access the same bias-controlled multiplex PCR assay, high-throughput sequencing, and quantitative computational tools of our immunoSEQ Service with the immunoSEQ Kit.

**The immunoSEQ Kit gives you:**

- **Control:** You determine where and when samples are sequenced
- **Consistency:** High accuracy and reproducibility from lab to lab
- **Customization:** Scalable barcode setup facilitates flexibility in experimental design
- **Convenience:** Only 4 hours of hands-on time

**3 SIMPLE STEPS**

1. **PREPARE AND SEQUENCE SAMPLES**
   Sequence your samples using the Illumina MiSeq® system in a lab of your choice, on a schedule that works best for you.

2. **TRANSFER DATA**
   Upload your data to our servers where we check them for quality and normalize them for residual PCR amplification bias.

3. **VISIT IMMUNOSEQ ANALYZER**
   Analyze and visualize your data using our powerful, cloud-based analytic toolset.
THE ANALYZER

Gain insights
Make discoveries

Massive immunosequencing data sets become meaningful with the immunoSEQ Analyzer.

Access powerful bioinformatics tools to analyze data and create rich, publication-ready analysis images of your discoveries. The Analyzer website makes it easy to organize projects and share data with individuals, groups or as public data sets.

- Both Service and Kit customers have full access
- Requires no software installation or maintenance

CLIENT SERVICES

Expert support

Adaptive Biotechnologies takes a collaborative approach on the successful design and analysis of experiments. Let us help you get the most value from your immunoSEQ Assay.

Both Service and Kit customers are fully supported by:

- Expert in-house scientific advisors
- Field-based application scientists
- Field-based account managers

ANALYZE. COMPARE. VISUALIZE. SHARE.

Powerful bioinformatics available on the Analyzer

How to order

Contact your Immunosequencing Account Executive, or...

- call 855.466.8667
- email clientservices@adaptivebiotech.com
- visit us online www.adaptivebiotech.com

Clone tracking

Public clones
Repertoire properties
JOIN US AT THE FOREFRONT OF IMMUNE-BASED DISCOVERIES

Adaptive Biotechnologies is the pioneer in combining high-throughput sequencing and expert bioinformatics to profile T-cell and B-cell receptors. Adaptive is bringing the accuracy and sensitivity of the immunoSEQ Platform into laboratories around the world to drive groundbreaking research. We are also committed to translating our immunosequencing discoveries into clinical diagnostics to improve patient care in cancer and other immune-mediated diseases.