

Immune Repertoire Profiling Service

DESCRIPTION

Immune repertoire often represents an individual's current immunological status; whether the person is healthy, vaccinated, diseased, or infected. Only high-throughput NGS analysis can comprehensively profile an individual's immune repertoire. The Immune Repertoire Profiling Service provides effective data acquisition, integration, and interpretation for the customers.

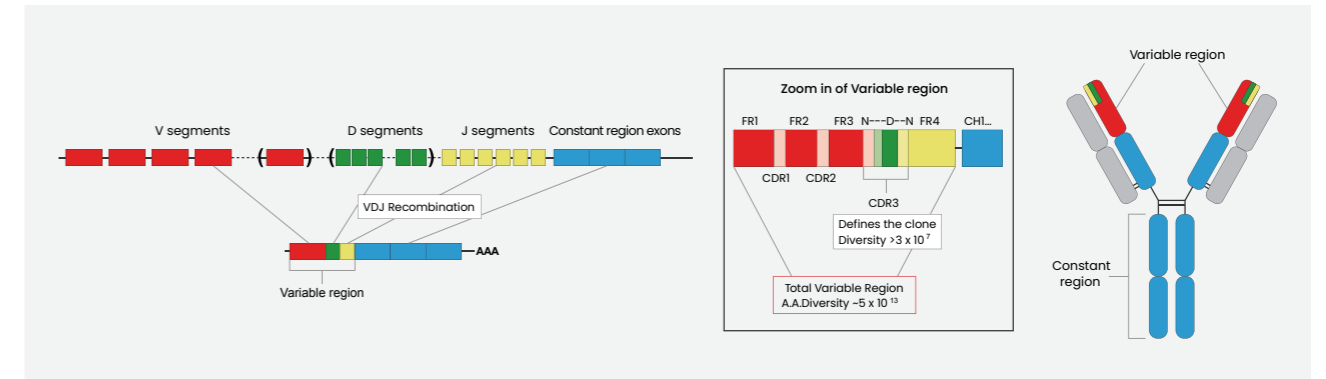
KEY FEATURES

1. Quantitative analysis of library diversity	<ul style="list-style-type: none"> - NGS-based analysis of complex antibody library consisting of millions (10^6-10^{12}) of sequences in a single experiment - Analysis of immunoglobulin and T-cell receptor repertoire; analysis of BCR/TCR for each clone - Frequency analysis of individual antibody clones within the library, identifying major and minor clones
2. Tracking of clonal frequencies for each sample	<ul style="list-style-type: none"> - For antibody discovery, analysis of library diversity according to its panning degree enabling monitoring changes in clonal frequency - Minimized omission of potentially significant antibody clones - Analysis of immune repertoire characteristics from blood sample and monitoring of each clone
3. Various analysis options for immune system studies	<p>Perform the experiment with drastically reduced time and cost enabled by the advanced technology of MSSIC developed by Celemics</p>

REQUIREMENTS

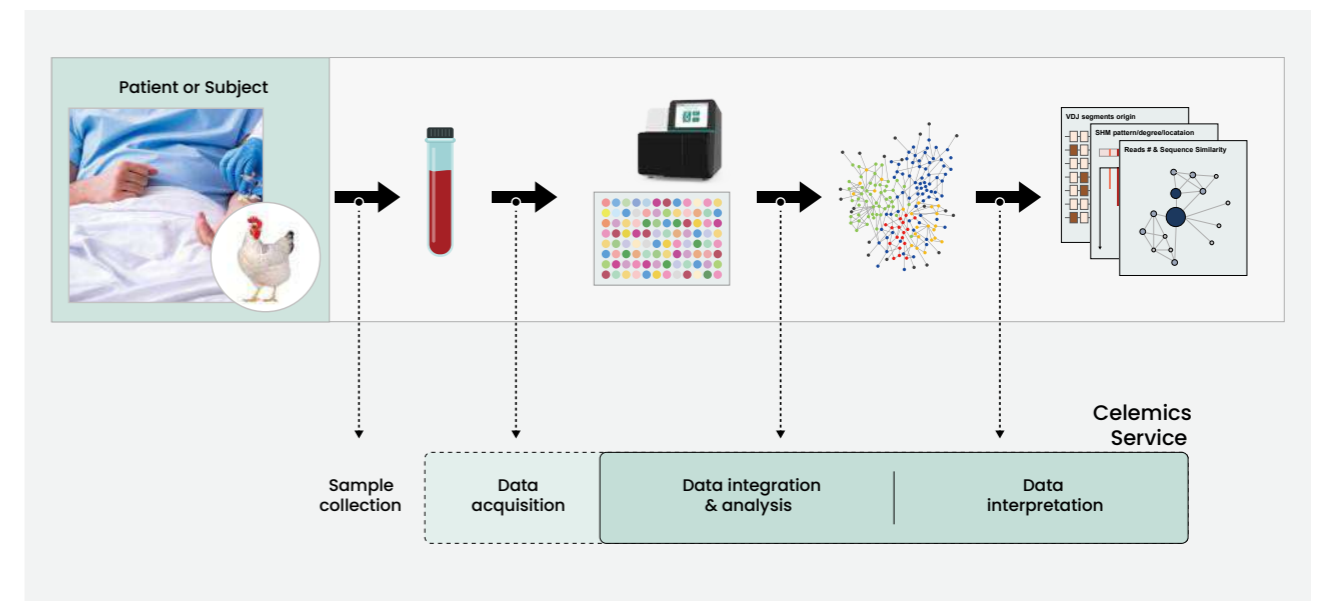
Sample type	Total RNA from B-Cell or/and T-Cell, DNA from B-Cell or/and T-Cell, DNA/RNA Amplicons
Concentration	100 ng/ μ l
Amount	1 μ g
Turnaround time	Within 4-6 business weeks from sample collection
Temperature	RT for storage and shipment

DIVERSITY OF ANTIBODY



The antibody genes are composed of many different segments. The antibodies are presented in B cells with great diversity of 10^{13} repertoires.

GENERAL WORKFLOW



Celemics provides service for data acquisition, integration, and analysis, and interpretation.



