

■ NimbleGen Sequence Enrichment Service

General Information

Despite the ever-increasing capacities of next-generation sequencing technologies, focusing on specific genomic regions is essential in order to address many scientific projects in a reasonable and cost-effective way.

NimbleGen Sequence Capture Arrays offer a highly flexible and cost-effective approach to specifically capture up to 30 Mb of genomic sequence. The production of custom arrays (385K and 2.1M features) as well as the catalogue Human Exome Array (180,000 exons + 551 miRNA exons represented) allow for a broad range of scientific questions to be addressed.

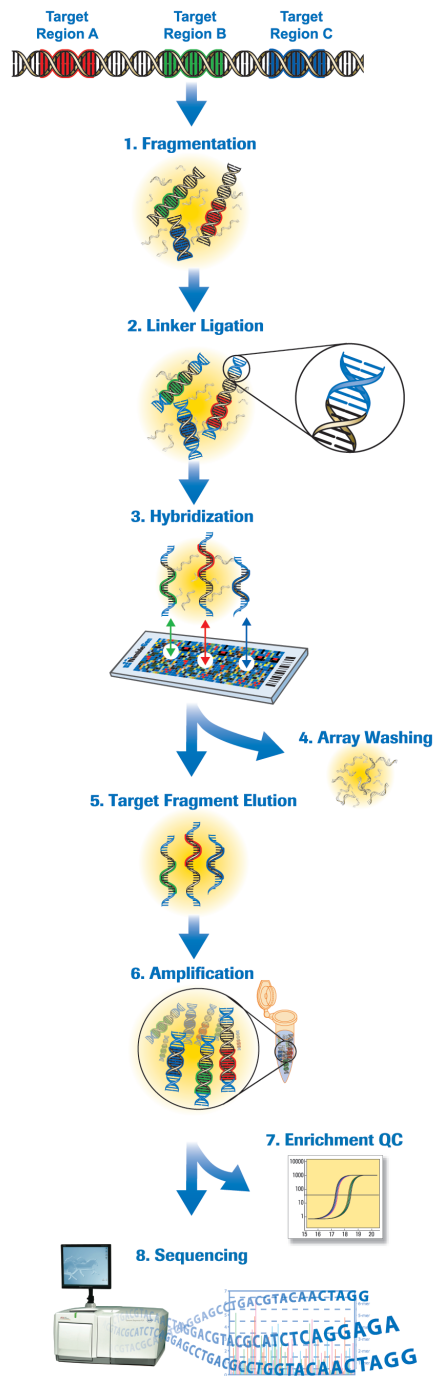
Advantages of NimbleGen Sequence Enrichment Service

- Up to 30 Mb of target sequence can be captured
- Empirically tested and proven capture design algorithm ensures a high level of specificity and sensitivity
- Processing of single samples is possible
- Built-in control probes allow for assessment of enrichment factor by quantitative PCR

Service Range

- ATLAS Biolabs covers the complete process from array design to the generation of enriched samples. The customer just needs to send genomic coordinates, RefSeq IDs, or Gene IDs, in order to start the design process. Design and library generation are adapted to the sequencing platform preferred by the customer.
- If requested, ATLAS Biolabs will also perform next-generation sequencing of the enriched sample.





Quality Control

ATLAS Biolabs is certified according to the international norm DIN EN ISO 9001:2008. Our production processes are subject to rigorous quality control at all steps:

- Quality and quantity of each DNA sample sent to ATLAS Biolabs will be determined by agarose gel analysis and by photometric analysis. Samples which do not pass QC will not be processed.
- Numerous control steps are executed during library preparation, e.g. QC of successful DNA fragmentation, QC of successful linker ligation, etc.
- Enrichment of the genomic sequences of interest is assessed by quantitative PCR of control loci.
- All quality assurance procedures are electronically documented and available for our customers on demand.

Sample Delivery

- The customer will receive a sufficient amount of enriched DNA to perform at least 3 next-generation sequencing runs.
- The customer will be provided with a documentation of successful enrichment.

Timeline

- Array design: 1 week
- Array production: 3 weeks
- Sequence enrichment: 2–3 weeks

Related ATLAS Biolabs Service

- Next-Generation Sequencing Service