

## Service Description

### Type of Service: Sequencing Service

#### Overview:

The knowledge of DNA sequences is essential in most applications of Molecular Biology. It can be used in the identification of specific genes of interest, to identify and confirm the content of a specific DNA fragment, in patent application and also in most of projects requiring the development of new PCR markers. The list for the utility of DNA sequences can be as long as the number of people requesting it. At DNA LandMarks, there are 3 different types of sequencer in place. The Li-Cor System which is an automated slab gel sequencing device generating DNA sequences as long as 1200 base pairs per run. DNA LandMarks has 12 Li-Cor machines. The second type is the ABI 3700 capillary system generating shorter sequences (600 base pairs) but operating at a higher throughput with less human intervention. The third sequencer is an ABI 3730 XL which integrates both qualities of the 2 previous apparatus, generating long reads in a very high throughput manner. The main goals of the sequencing service are:

- 1) Deliver very high quality sequences and annotations
- 2) Deliver in competitive turn around time
- 3) Be cost competitive

#### Service Offered:

- Single Pass Primer Extension (Forward and/or Reverse)
- Full sequence Analysis
  - Double stranded sequencing
  - Primer walking
  - Transposon insertion
- Shotgun Sequencing
- cDNA/EST Library Sequencing
- BAC End Sequencing
- BAC sequencing

These sequencing types involve one or more of the following activities:

- Plating of the library

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- Replication of the clones
- DNA shearing/subcloning
- Sequencing reactions
- Oligo design
- Automatic vector and quality clipping
- Contig Assembly
- Results transferred to a secure account at:  
[HTTP://WWW.DNALANDMARKS.CA](http://www.dnalandmarks.ca)

### **Sample Format supported:**

Clones (tubes - Stabs or glycerol stocks)  
Clones (96 well-plate format - Stabs or glycerol stocks)  
Clones (384 well-plate format - Stabs or glycerol stocks)  
Plasmids and PCR products (in water or lyophilized)

### **Quality:**

Note that the quality of the final results is highly dependent on the quality of the samples submitted (clones and/or nature of sequence to be analyzed). For best results please follow the DLM sample requirements document exactly.

Click to download the file  
[http://www.dnalandmarks.ca/Sample\\_requirements.pdf](http://www.dnalandmarks.ca/Sample_requirements.pdf)

DLM guarantees high-quality sequence data. High volume can be processed efficiently. All results are transferred to your personal account.

We provide upon request:

- Fasta file (single pass or consensus)
- Trace file (raw data; ab1 or scf file type)
- BLAST analyses
- Short text summary accompanying the results

### **Turnaround Time:**

Turn around time is dependant on type of request. We guarantee a turn around time of 2-3 days for Single Pass Primer Extension for less than 384 samples (in plate format).

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