

ElectroSep

A New DNA Size-Selection Technology using Gene Stix™

Introduction:

Electro-Sep products are designed to recover size-selected DNA from agarose gel. DNA (nucleic acid) is first electrophoretically separated by size in an agarose gel made with a special Binding Buffer, then the size-selected DNA is bound to a Gene Stix membrane in the gel. Gene Stix are removed from the gel and the DNA is eluted off into a Collection tube using a special Elution Buffer.

Highlights:

High DNA recovery
Rapid and easy to use
No damaging UV light needed

How ElectroSep (Gene Stix) works (as in Package Insert):

Fig. 2 – View of 45 min EP Pattern

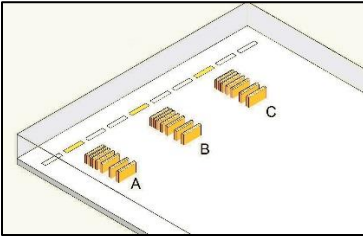


Fig. 3 – Placement of Locator Tabs using a calibrated DNA Migration Gauge

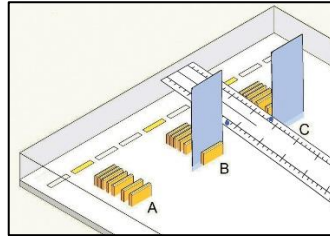


Fig. 3a

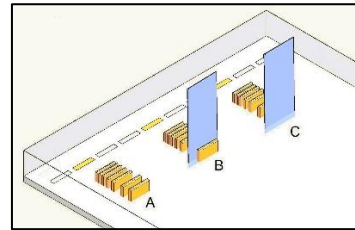


Fig. 3b

Fig. 4 – Placement of Gene Stix™

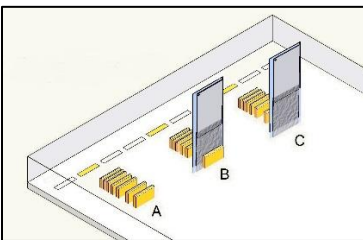


Fig. 5 – Removal of Locator Tabs

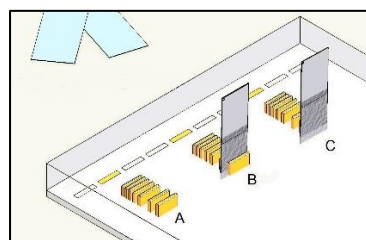


Fig. 6 – View of 55 min EP Pattern with 2 Gene Stix in place

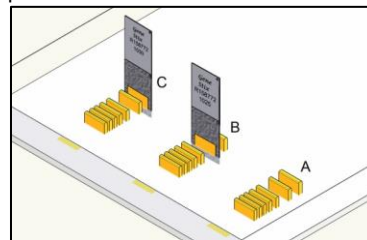


Fig. 7 – View of 55 min EP Pattern and removal of 1st Gene Stix™

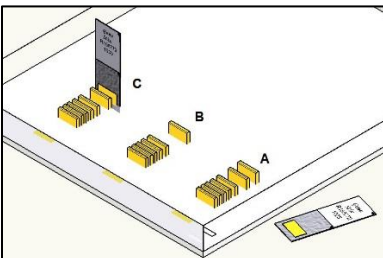


Fig. 8 – View of 55 min EP Pattern and removal of the 2nd Gene Stix™

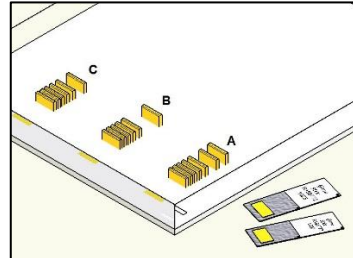
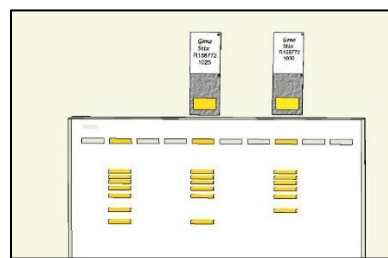


Fig. 9 – Top down view of 55 min EP after removing a 2nd Gene Stix™



Advantages of Electro-Sep using Gene Stix technology:

- No specialized gel electrophoresis equipment needed.
- NO UV dyes needed in sample.
- Does not require use of damaging UV sensitive dyes.
- Uses Calibrated DNA Migration Gauge in room light.
- Multiple Gene Stix can be used with one sample.
- Unique Serial Numbering system provides unambiguous sample identification.
- No cutting of gel bands required.

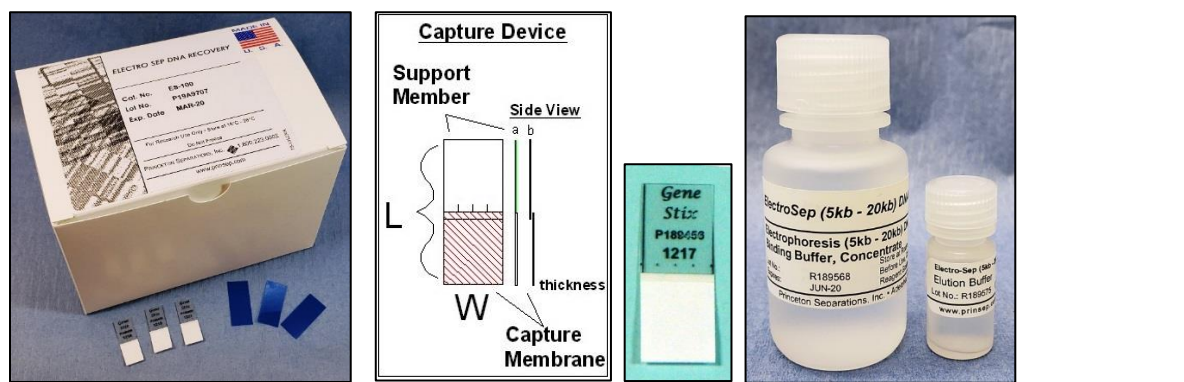
Applications:

The Electro-Sep family of products can be used for the following applications:

- Size Selection of DNA for use in Next Generation Sequencing (NGS)
- Size Selection and recovery of RNA
- NGS Library Prep
- Long Range PCR
- Barcoded Long Range PCR
- mtDNA
- eDNA

Products:

approx.
size
↓



ES-100 kit Gene Stix design Buffers (Binding and Elution)

ELECTRO SEP (5kb - 20kb) DNA RECOVERY KIT, Starter kit ES-100
- 10ea Gene Stix + associated plastic parts + extra buffers (complete)

ELECTRO SEP (5kb - 20kb) DNA RECOVERY 50 PC KIT, ES-102
- 50 Gene Stix + associated plastic parts (Buffers not included)

Binding Buffer, Elution Buffer (both in several configurations – go to <https://www.prinsep.com/electrosep>)