IrysPrep® Reagent Kits
Optimized Kits for Use with the Irys® System

Key Features
- High molecular weight DNA extraction
- Optimized kits and protocols for a variety of sample types

Overview
IrysPrep® kits provide the critical reagents necessary to extract high molecular weight (HMW) DNA and to label it for use with the Irys® System. There is a kit with reagents and protocols that were optimized for DNA isolation from animal tissue, another for isolation of plant tissue, and one for a variety of other sample types (e.g. cell lines, human blood). In combination with a labeling kit, there is enough buffer, dye, labeling reagents and controls to perform between 5-10 HMW DNA preps (isolation, labeling and staining) depending on the kit and sample type. User supplies basic reagents used in most genomics labs (e.g. proteinase K, TE Buffer, etc).

High Molar Weight DNA Extraction
Next-Generation Mapping (NGM) begins with the isolation of HMW DNA. Our IrysPrep kits come with reagents and protocols that were optimized for isolating and purifying HMW DNA in a process that is gentler than existing HMW DNA extraction methods. The resulting purified DNA, several megabases in length, is optimal for use with the Irys System.

Learn More
For IrysPrep Reagent Kit information, please contact info@bionanogenomics.com or visit www.bionanogenomics.com.
Labeling Reagents Developed Specifically for Use with the Irys System

IrysPrep labeling reagents are used specifically for applications on the Irys System. Starting with HMW DNA purified using the appropriate IrysPrep kit, fluorescent nucleotides are incorporated into specific sequence motifs. The result is uniquely identifiable genome-specific label patterns that enable de novo map assembly, anchoring sequencing contigs and discovery of large structural variation (>1kbp).

Optimized Kits and Protocols for a Variety of Sample Types

IrysPrep kits and protocols enable the extraction of HMW DNA from a variety of sample types including soft or fibrous animal tissues and plant tissue. Protocols include technical tips on further optimization for specific sample types. Samples that have been prepared with IrysPrep reagents and protocols are ready to load onto the IrysChip® for imaging on the Irys® instrument.

IrysPrep Reagent Kits Ordering Information*

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Catalog No.</th>
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<tbody>
<tr>
<td><strong>IrysPrep Kit</strong> — (10 reactions) for use with most sample types. Order with IrysPrep DNA Stain.</td>
<td>RE-011-10</td>
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<tr>
<td><strong>IrysPrep Animal Tissue DNA Isolation Kit</strong> — (10 reactions) for use with soft or fibrous animal tissue. Order with IrysPrep DNA Stain and IrysPrep NLRS Labeling Kit.</td>
<td>RE-013-10</td>
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<tr>
<td><strong>IrysPrep Plant Tissue DNA Isolation Kit</strong> — (5 reactions) for use with most plant tissues. Order with IrysPrep DNA Stain and IrysPrep NLRS Labeling Kit.</td>
<td>RE-014-05</td>
</tr>
<tr>
<td><strong>IrysPrep DNA Stain</strong> — (10 reactions) for use with IrysPrep, IrysPrep Animal Tissue DNA Isolation, and IrysPrep Plant Tissue DNA Isolation Kits.</td>
<td>RE-111-10</td>
</tr>
<tr>
<td><strong>IrysPrep NLRS Labeling Kit</strong> — (10 reactions) for use with IrysPrep Animal Tissue DNA Isolation and Plant Tissue DNA Isolation Kits.</td>
<td>RE-012-10</td>
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* Nicking endonucleases ordered separately through NEB. Refer to the IrysPrep Protocol for appropriate enzyme selection.

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