OhmX

Nabsys

Expedited Research. Broadened Detection.

OhmX VOLT™ Whole Genome Kit

Nabsys, a leader in electronic genome mapping (EGM), leverages advanced solid-state nanodetectors to analyze long DNA molecules and create high-density maps capable of identifying structural variants (SVs) with precision and detail. The **OhmX VOLT™ Whole Genome Kit** makes adoption easy through standard molecular biology techniques and a simplified, amplification-free 6-hour workflow.

Ultimate Flexibility

The workflow can be adapted to meet your needs, with no library prep or barcoding needed

Maximum Accessibility

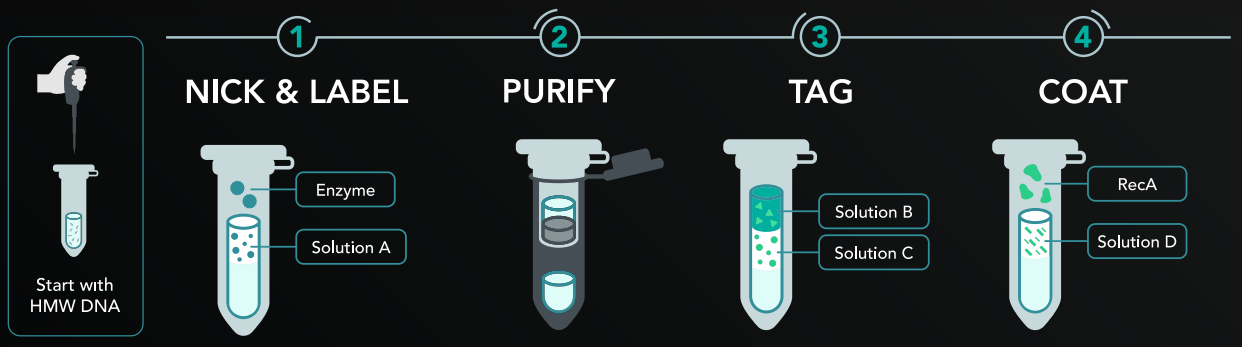
The user-friendly process means no prior cytogenomics experience needed

Sample Preparation

A simple 6-hour workflow enables you to generate insights and results rapidly

Sample Preparation Made Simple

Expedite your research and detect structural variants with broadened resolution



TOTAL TIME	1hr 10m	1hr 40m	40m	2hr 10m

The sample preparation process entails sequence-specific DNA nicking, precise labeling and tagging of these nicked sites with a proprietary tag to enhance electronic detection. The final step of sample preparation involves coating the DNA with a DNA binding protein to increase the signal in the detector and ensure the precise detection of sequence-specific tags.

Our DNA tagging process involves precisely tagging high-molecular weight (HMW) DNA at known recognition sites using sequence specific nicking enzymes. This process creates tagged DNA molecules that are then electronically detected as they translocate through the channels of the OhmX Nanodetector. The resulting data provides a comprehensive and precise genome-wide map of tagged positions, offering insights into structural variations, rearrangements, and genomic alterations with unparalleled precision and efficiency.

Cultured Cells
(Fresh & Frozen)

Blood Cells
(Fresh & Frozen)

Bone Marrow

DNA input requirements
4.5 µg of starting sample yields 10 injections

Detector load requirement
1 load is required per detector

Sample Type	Recommended Quantity	Recommended Storage Conditions
Fresh human cell lines	1.0 million live cells	Cell pellets should be freshly made right before HMW DNA isolation. Store the fresh cell pellets on ice before use.
Frozen human cell lines	1.0 million live cells	Frozen cell pellets should be stored at -80°C (not -20°C storage)
Fresh human blood (EDTA)	100-500µL	4°C storage, use within 48 hrs post draw
Frozen human blood (EDTA)	100-500µL	Aliquot and store at -80°C within 48 hrs post draw

Ordering Information

Product	Part Number	Description
OhmX VOLT™ Whole Genome Kit	900-00063-001	Comprehensive sample preparation kit designed for efficient HMW DNA tagging for EGM analysis. Contains reagents for 10 separate sample preps from 5 µg of DNA starting material each. Each sample prep results in enough material for multiple injections and retains.

Learn more about OhmX VOLT™ Whole Genome Kit. Visit **nabsys.com/learn/sample-prep-kit** or contact a sales representative at **info@nabsys.com** today.