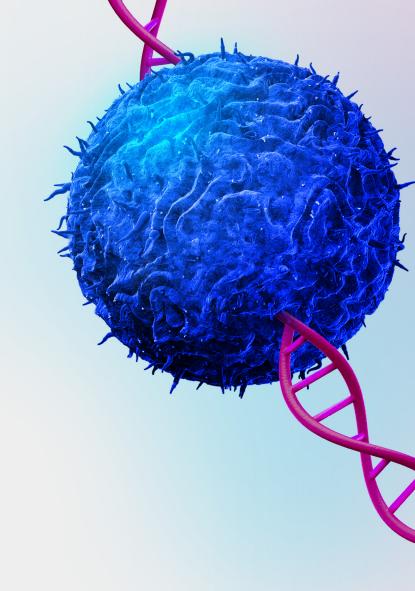


AmplideX® Nanopore Carrier Plus Kit*

A Long-range PCR and Any-length Sequencing Solution for Carrier Screening

The AmplideX® Nanopore Carrier Plus Kit* evaluates 11 genes with high carrier prevalence, including FMR1, SMN1/2, HBA1/2, GBA, F8 intron inversions, CYP21A2, TNXB, CFTR, and HBB in 4 PCR enrichment tubes. With a single, flexible workflow designed to consolidate existing assays and methods, Carrier Plus can be used as a primary genetic analysis method or to complement existing NGS workflows for large panels. Use of Long Read Sequencing also provides additional insight compared to existing methods (e.g. AGG interruptions in FMR1) and reducing the need for reflex testing. The AmplideX® Reporter software further simplifies data analysis and reporting for a seamless, streamlined carrier screening assay.



One Workflow, 9 High-Prevalence Carrier Screening Conditions, 11 Genes

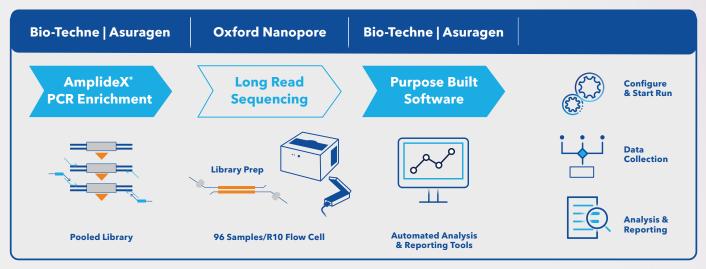


Figure 1- High level assay workflow

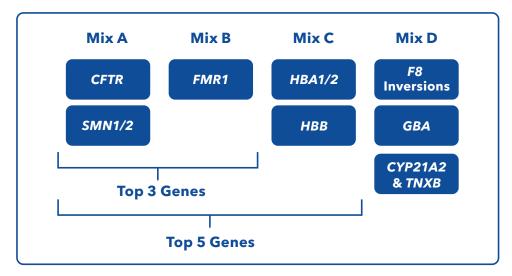


Figure 2A. Composition of 11 genes across 4 tubes

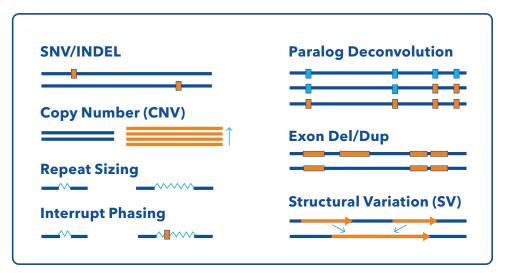


Figure 2B. Different genetic variations detected and analyzed by the assay

AmplideX[®] Nanopore Carrier Plus Kit Proposed Product Features

Sample Type	Whole blood, cheek swab, saliva
Extraction	Multiple automated and manual methods, 20-80 ng input per PCR reaction
Workflow	Up to 4 PCRs per sample, 1 library prep per sample, 1 instrument for key hard-to-decipher genes
Throughput	Up to 96 samples per MinION flow cell
Instruments	Various thermocycler models; ONT sequencers (Mk1B, GridlON), R10.4.1 flow cells and reagents; will support Q-Line
Software	Amplidex Reporter interface with ONT instrument setup/execution and analysis

 $\textbf{Bio-Techne}^* \mid \text{R\&D Systems}^{\scriptscriptstyle{\top}} \text{ Novus Biologicals}^{\scriptscriptstyle{\top}} \text{ Tocris Bioscience}^{\scriptscriptstyle{\top}} \text{ ProteinSimple}^{\scriptscriptstyle{\top}} \text{ ACD}^{\scriptscriptstyle{\top}} \text{ ExosomeDx}^{\scriptscriptstyle{\top}} \text{ Asuragen}^{\scriptscriptstyle{\top}}$

 $\label{thm:continuous} This product is under development; performance characteristics and final product features to be determined. Trademarks and registered trademarks are the property of their respective owners. \\ STRY0337510_ASU_FL_Carrier-Plus-Beta_JR$

