

BD Rhapsody™ Whole Transcriptome Analysis Amplification Kit

Uncover the whole transcriptome of a single cell



BD, the BD logo and Rhapsody are trademarks of Becton, Dickinson and Company or its affiliates. All other trademarks are the property of their respective owners. © 2019 BD. All rights reserved.

BD RESTRICTED

Introduction

The BD Rhapsody™ Whole Transcriptome Analysis (WTA) Amplification kit is designed to work seamlessly with the BD Rhapsody™ Single-Cell Analysis System

Why WTA?

New biomarker and pathway identification involves a discovery phase wherein a researcher is screening for differential gene expression in their samples

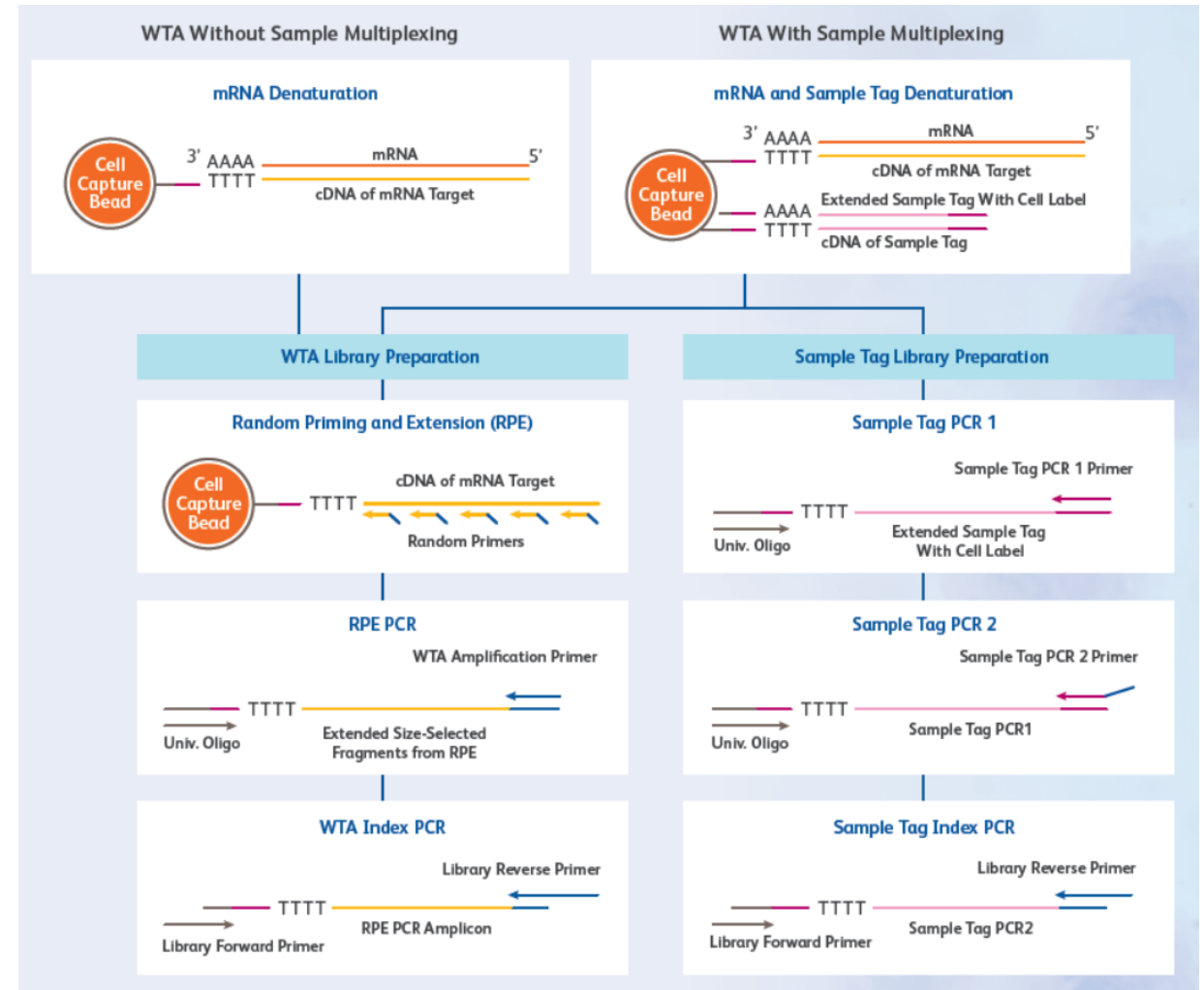
Why BD Rhapsody™ Single-Cell Analysis System?

- With the Rhapsody™ Single-Cell Analysis System, perform QC on your precious samples before any single cell assay
- The capture efficiency of the BD Rhapsody™ Single-Cell Analysis System is > 70% on cell lines



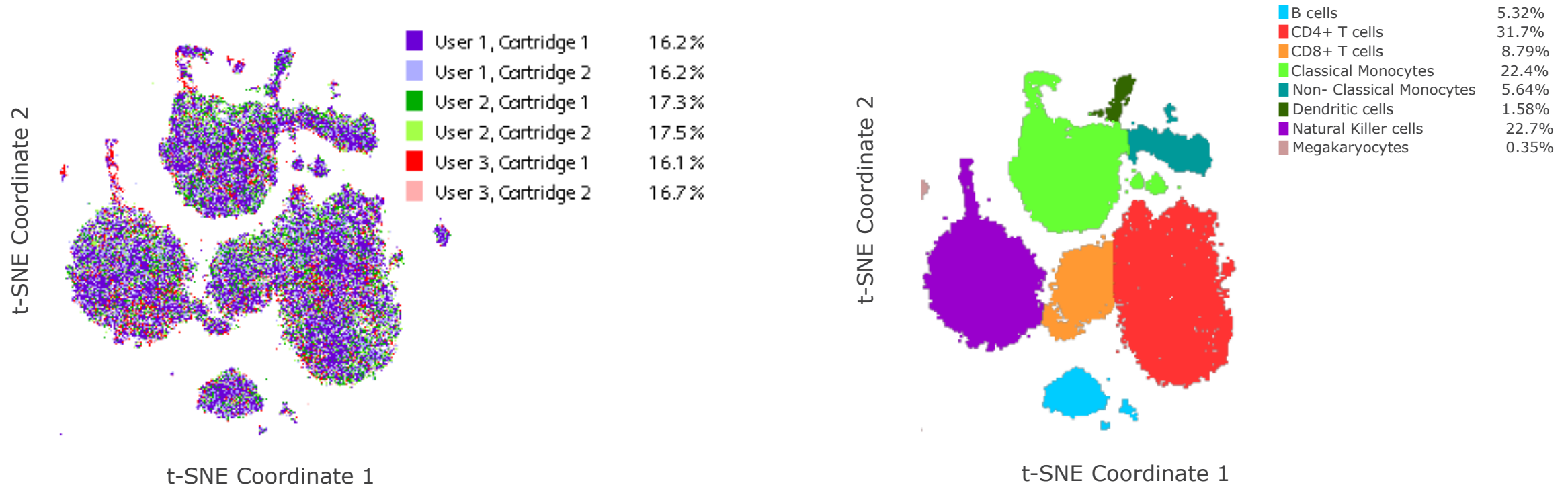
BD Rhapsody WTA Amplification kit

- Simple workflow designed to generate highly reproducible WTA data on the BD Rhapsody system
- Tested to work well across multiple cell types and different cell numbers
- Enables analysis of the whole transcriptome of up to 12 samples in one workflow by working in tandem with the BD[®] Single-Cell Multiplexing kit
- Identify your genes of interest and analyze them cost effectively using the BD Rhapsody[™] Targeted Panels



Generate reproducible WTA data using the BD Rhapsody WTA Amplification kit

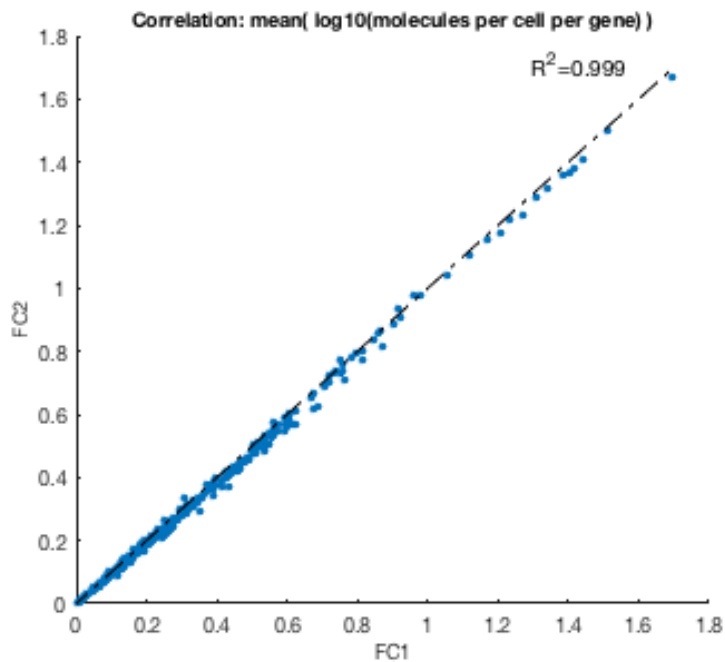
Experimental Design: Different aliquots of the same sample analyzed by three different users (User 1, 2, 3). Each user ran the sample in two different cartridges (Cartridge 1 and 2).



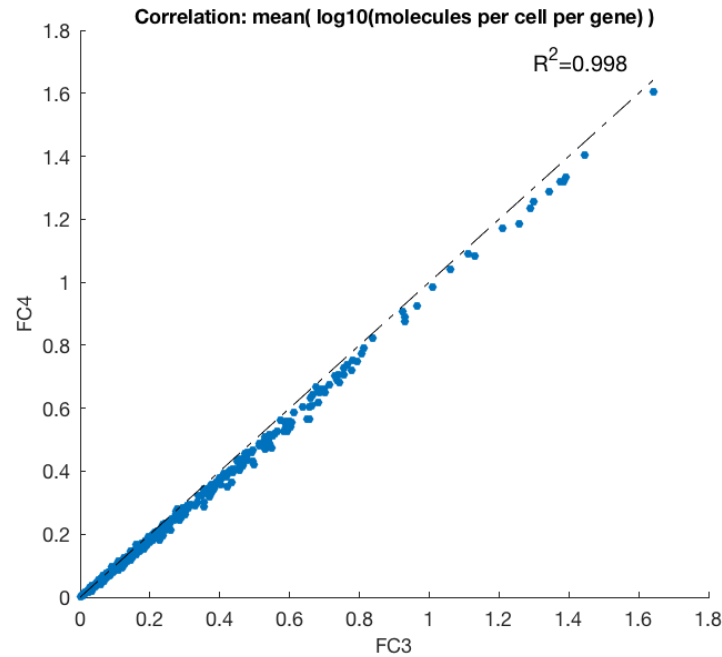
Generate reproducible data using BD Rhapsody WTA Amplification kit

Experimental Design: Correlation between WTA analyses of the same sample processed on two different individual cartridges. Data shown for three different users.

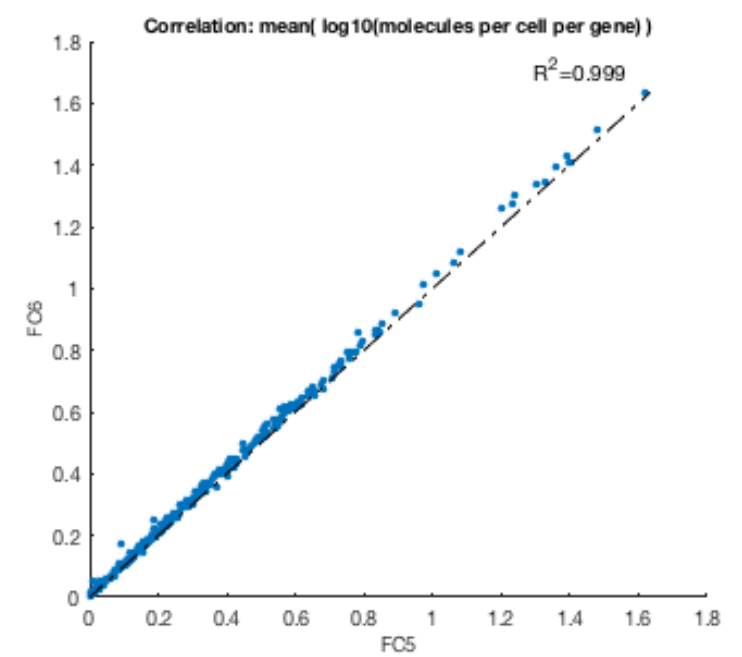
User 1 (FC1, FC2)
 $R^2 = 0.999$



User 2 (FC3, FC4)
 $R^2 = 0.998$



User 3 (FC5, FC6)
 $R^2 = 0.999$

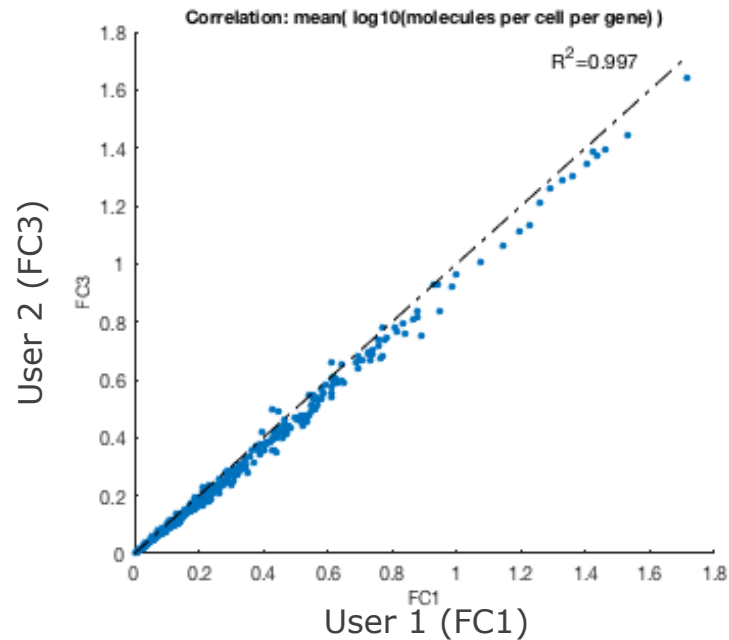


Generate reproducible data using BD Rhapsody WTA Amplification kit

Experimental Design: Correlation between WTA analyses of the same sample processed by three different users.

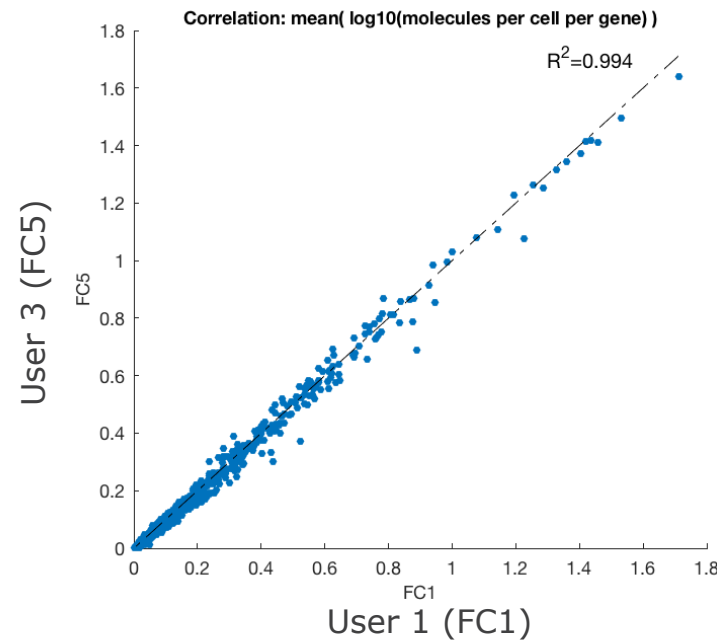
User 2 Versus User 1

$$R^2 = 0.997$$



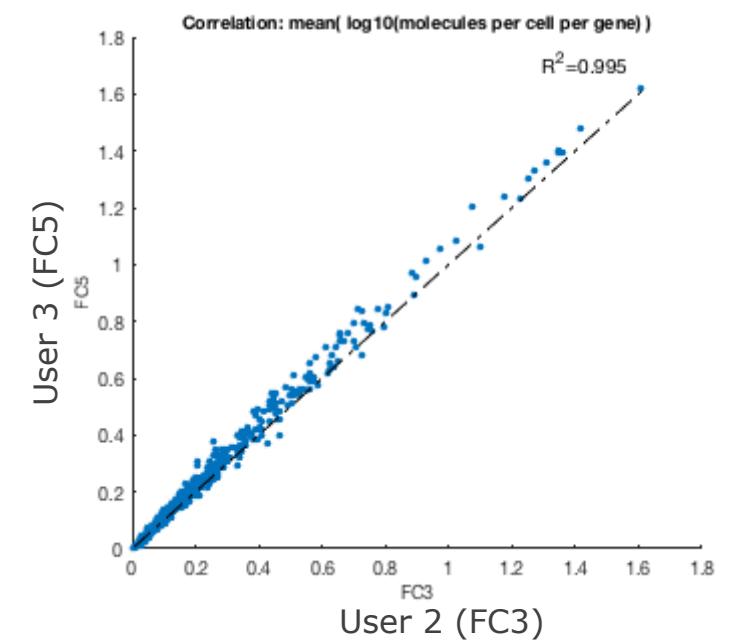
User 1 Versus User 3

$$R^2 = 0.994$$



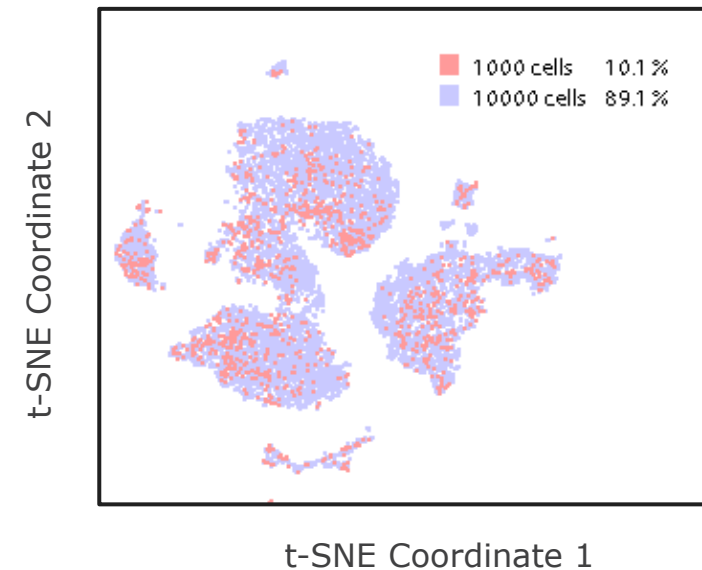
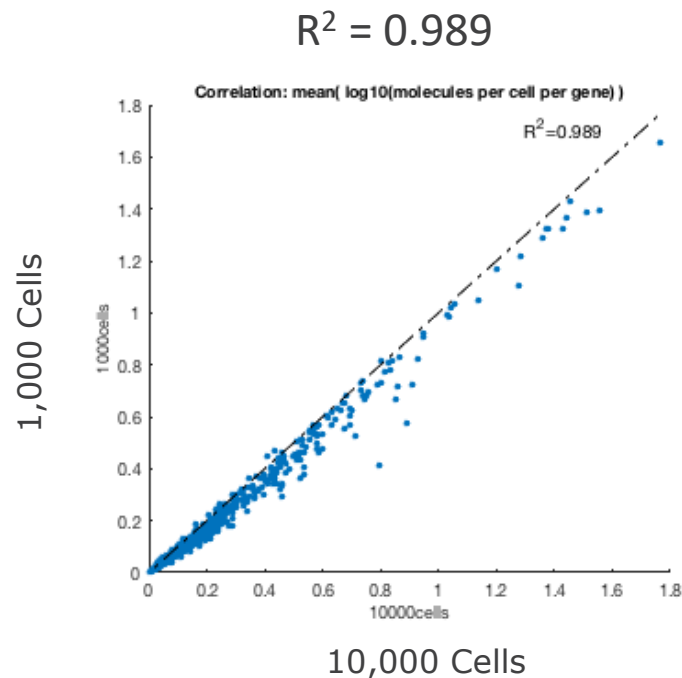
User 2 Versus User 3

$$R^2 = 0.995$$



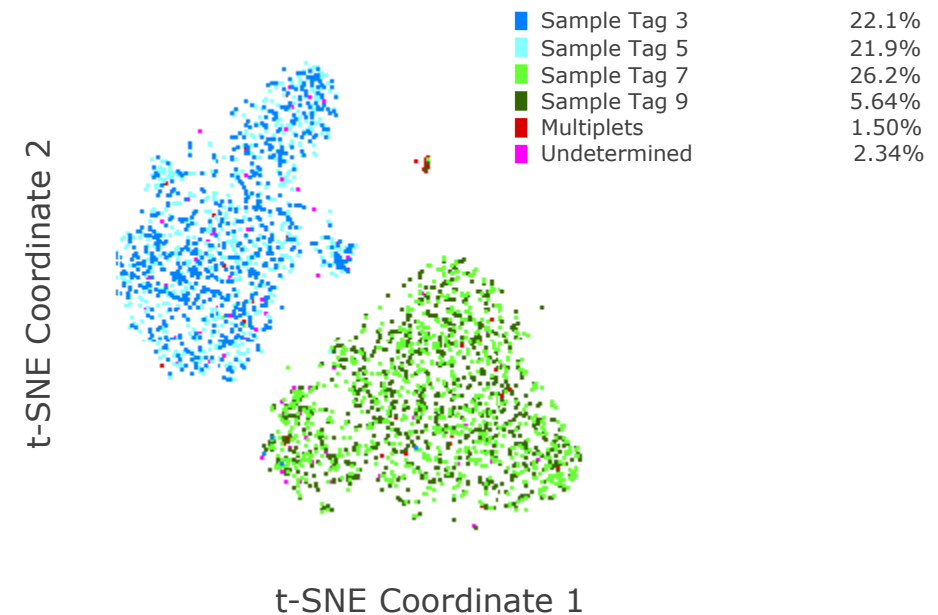
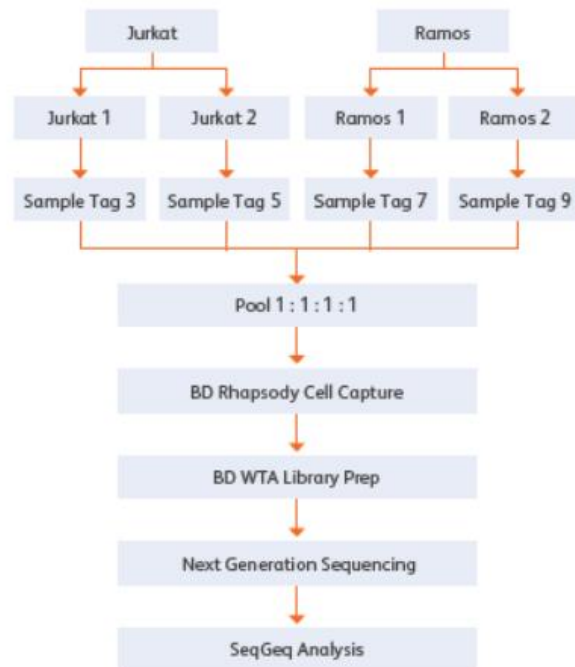
BD Rhapsody WTA Amplification kit allows users to generate WTA data across different cell inputs

Experimental Design: 1,000 or 10,000 PBMCs from the same donor were processed using the BD Rhapsody WTA Amplification kit.



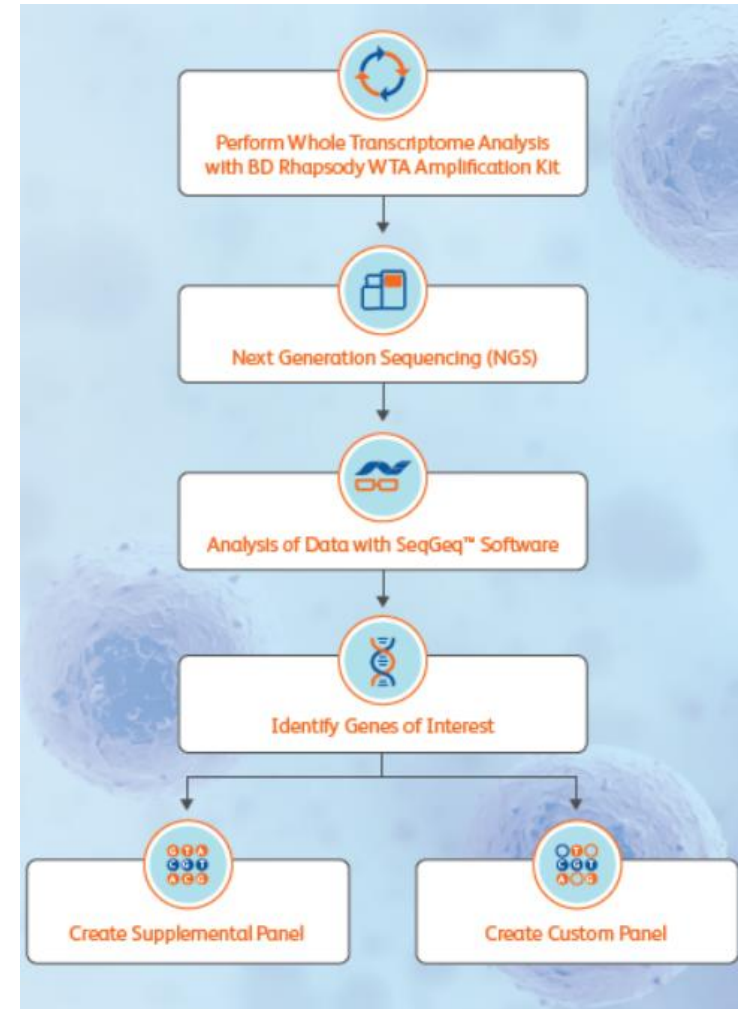
Perform WTA analyses of multiple samples simultaneously using the BD Rhapsody WTA Amplification kit and BD Single-Cell Multiplexing kit

Experimental Design: Jurkat and Ramos labeled with four unique sample tags from the BD Human Single-Cell Multiplexing kit were mixed at an equal ratio (1:1:1:1) pooled, processed using the BD Rhapsody Single-Cell Analysis System and libraries were generated using the BD Rhapsody WTA Amplification kit.

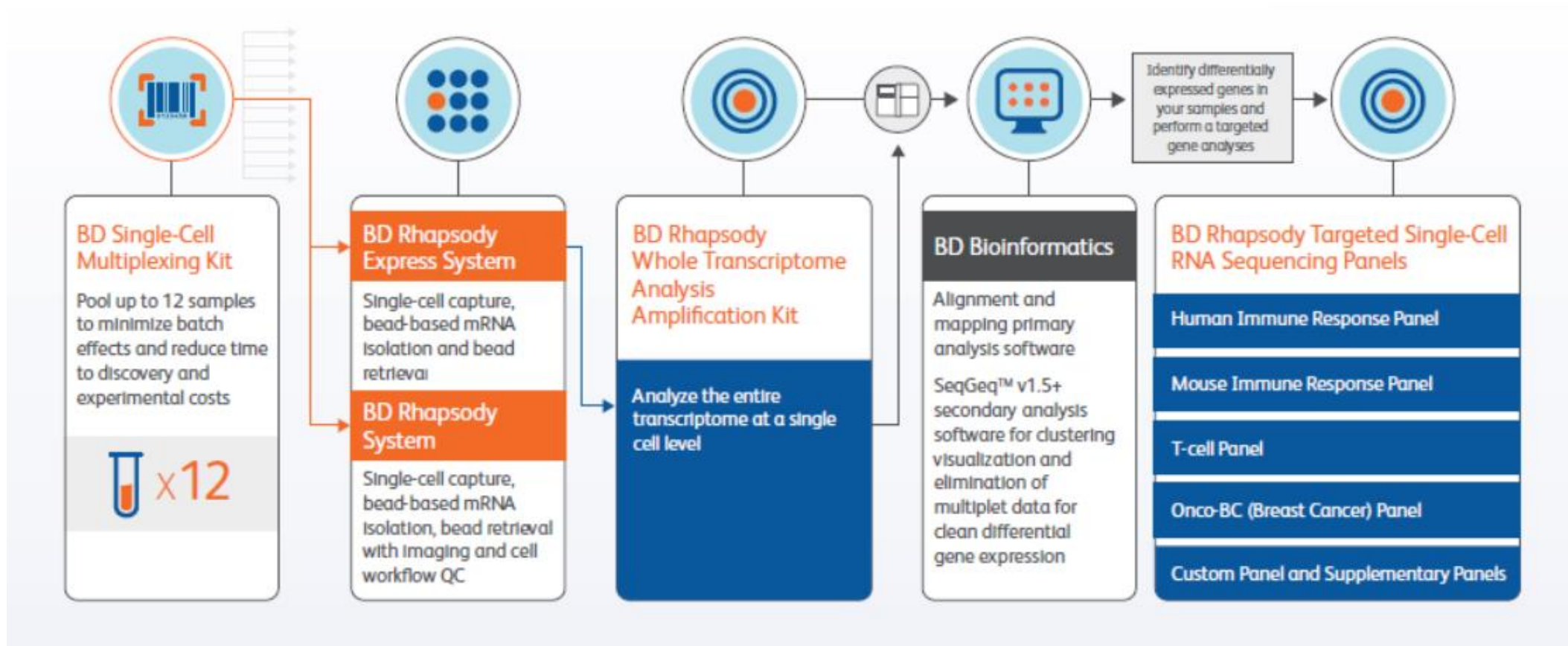


Summary of results from the BD Rhapsody WTA Amplification kit

- Simple workflow that generates highly reproducible WTA data
- Works well across multiple cell types and different cell numbers
- Enables analysis of the whole transcriptome of up to 12 samples in one workflow by working in tandem with BD Sample Multiplexing kit



BD Rhapsody single cell workflow that includes BD Rhapsody WTA Amplification kit



What reagents are needed to perform this assay?

- WTA Reagent Kit 4 pack
 - Cat #633802
- Single-Cell Multiplexing Kit (as desired)
 - Human Cat #633781
 - Mouse Cat #633793
- AbSeq (as desired)

Summary

- The BD Rhapsody WTA Amplification kit is designed to analyze the whole transcriptome at a single cell level on the BD Rhapsody Single-Cell Analysis System
- The BD Rhapsody WTA Amplification kit has a high level of reproducibility and the ability to work consistently across different cell inputs and is compatible with BD Sample Multiplexing kit
- Our results demonstrate the utility of the BD Rhapsody WTA Amplification kit in generating high quality WTA data that enables users to identify different cell types in their samples and analyze the entire transcriptome at a single cell level high confidence

Thank you!

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

BD, the BD logo and Rhapsody are trademarks of Becton, Dickinson and Company or its affiliates. All other trademarks are the property of their respective owners. © 2019 BD. All rights reserved.



BD RESTRICTED