



The BD Rhapsody™ HT Single-Cell Analysis System is a proprietary system of Becton, Dickinson and Company, and Becton, Dickinson and Company (BD) is its sole manufacturer. Only BD and/or Fisher Scientific are authorized to supply the system in the U.S.

The BD Rhapsody™ HT Single-Cell Analysis System allows flexible sample processing and cell capture from hundreds to hundreds of thousands of single-cells using a gentle and robust microwell-based cartridge technology and multitier barcoding system enabled by BD Rhapsody™ Enhanced Bead Technology. Multiple samples can be processed in a single run when utilizing BD multiplexing antibodies. The captured cellular information is utilized to generate various types of libraries for next-generation sequencing applications providing accelerated time to insight.

The BD Rhapsody™ HT Single-Cell Analysis System offers the following features, aspects of which are covered under BD patents (see below):

The BD Rhapsody™ HT Xpress System is small, portable, has no electronics and can easily run million-cell studies:

- The Platform offers gentle and robust microwell-based cartridge technology with no sample loss due to clogging of channels or wetting failures
- The Platform can recover cells with disparate size and morphology, including fragile cell types
- The Platform offers a flexible use 8-lane cartridge, partial use of cartridge enables:
  - Running more or different types of experiments
  - Processing samples together or on different days
- The Platform provides a capture rate up to 80% with low multiplet rate per cell load listed below:
  - 2.5% @ 10,000 cell load
  - 5.2% @ 25,000 cell load
  - 10.2% @ 55,000 cell load
  - 20.85% @ 100,000 cell load
- The Platform utilizes stable Magnetic Capture Beads:
  - Beads can be subsampled, shipped and archived at 4 °C for up to 1 year, creating experimental flexibility
  - Equivalent data are obtained from fresh beads and stored beads
  - Offers backup for underperformed or failed library preps

The BD Rhapsody™ Scanner (if purchased) can be used to provide quality control measures at different stages of the workflow by direct imaging

- The Platform offers visual confirmation of cell capture
  - Viability of cells
  - Cell retention
  - Cell multiplet rate
  - Ability to estimate the number of cells retrieved by sequencing

| Patent Number | Patent Application Title  |
|---------------|---|
| 10527171      | Gasket  |
| 10634691      | Loading Station   |
| 9290809       | Digital counting of individual molecules by stochastic attachment of diverse labels |
| 9567646       | Massively parallel single-cell analysis   |
| 9598736       | Massively parallel single-cell analysis   |
| 9708659       | Digital counting of individual molecules by stochastic attachment of diverse labels |
| 10202641      | Error correction in amplification of samples  |
| 10208356      | Massively parallel single-cell analysis   |
| 10722880      | Hydrophilic coating of fluidic channels   |
| 10954570      | Massively parallel single-cell analysis   |
| 11397882      | Molecular label counting adjustment methods   |

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