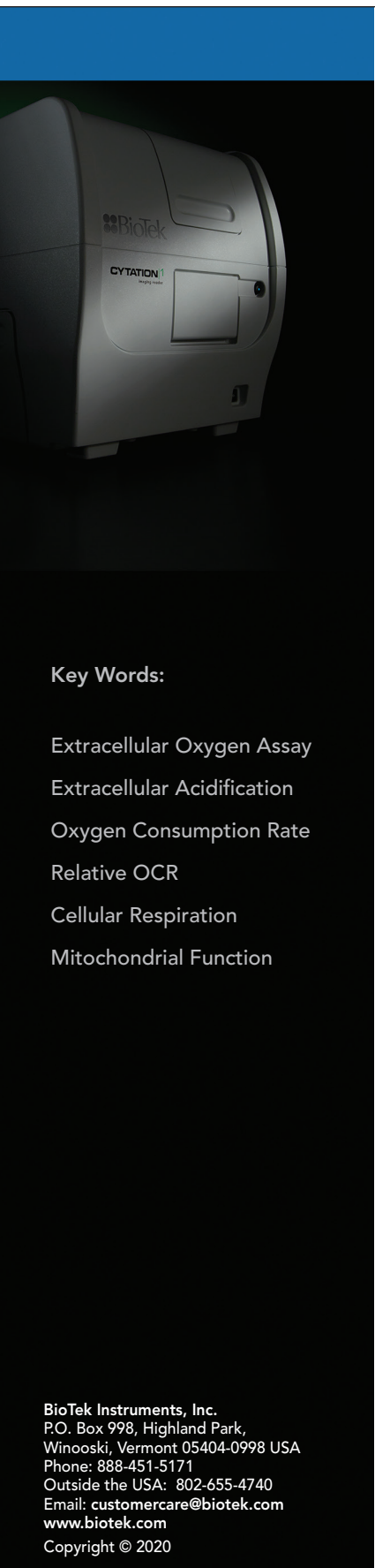


BioTek Resources for Agilent MitoXpress Xtra Oxygen Consumption Assay



Key Words:

- Extracellular Oxygen Assay
- Extracellular Acidification
- Oxygen Consumption Rate
- Relative OCR
- Cellular Respiration
- Mitochondrial Function

Introduction

The Agilent MitoXpress Xtra Oxygen Consumption Assay allows real-time measurement of extracellular oxygen consumption of whole cells or isolated mitochondria. BioTek offers a dedicated filter cube assembly, pre-programmed Gen5™ protocol, and user tutorial specifically optimized for use with the lifetime signal acquisition of the assay on BioTek's Cytation™ 1, Cytation 5, Synergy™ H1 or Synergy Neo2 instruments equipped with TRF capability.



Agilent MitoXpress Xtra Oxygen Consumption Assay User Tutorial:

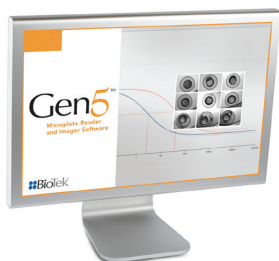
<https://www.biotek.com/applications/cell-based-assays.html>



BioTek Filter Cube P/N 8040587 or P/N 8040594 (Cytations, Synergy H1)

BioTek Filter Cube P/N 1035123 (Synergy Neo2)

<https://www.biotek.com/resources/sample-files/mitoexpress-xtra/> (Synergy Neo2)



Gen5 Data Analysis Protocol: AgilentXO2.prt

<https://www.biotek.com/products/software-robotics-software/gen5-microplate-reader-and-imager-software/software/>

Note: The User Tutorial and Data Analysis Protocols are compatible with Gen5 v3.04 (and higher) software. Existing Gen5 users can upgrade their v3.0x software for free at: <https://btresource.force.com/CRC/s/>

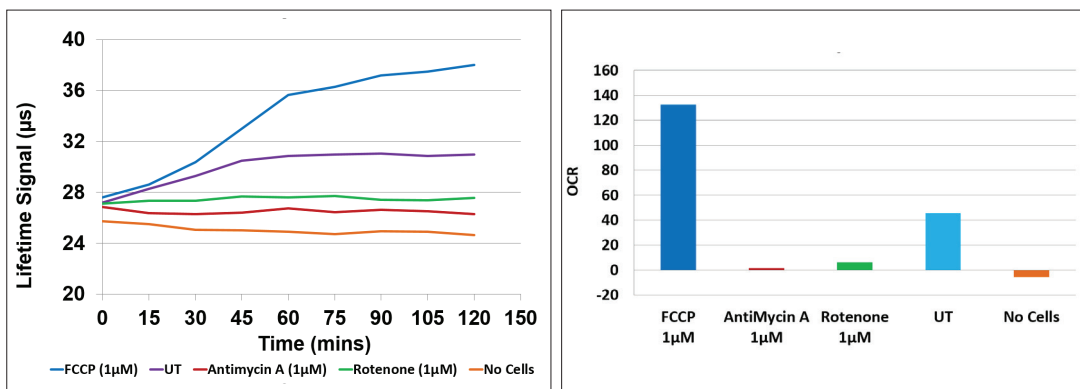


Figure 1. Example Data (Cytation 5): Lifetime detection of extracellular oxygen consumption in HepG2 cells (left). Slope is calculated from the linear portion of the curves to calculate oxygen consumption rates (OCR) of various cell treatments (right).

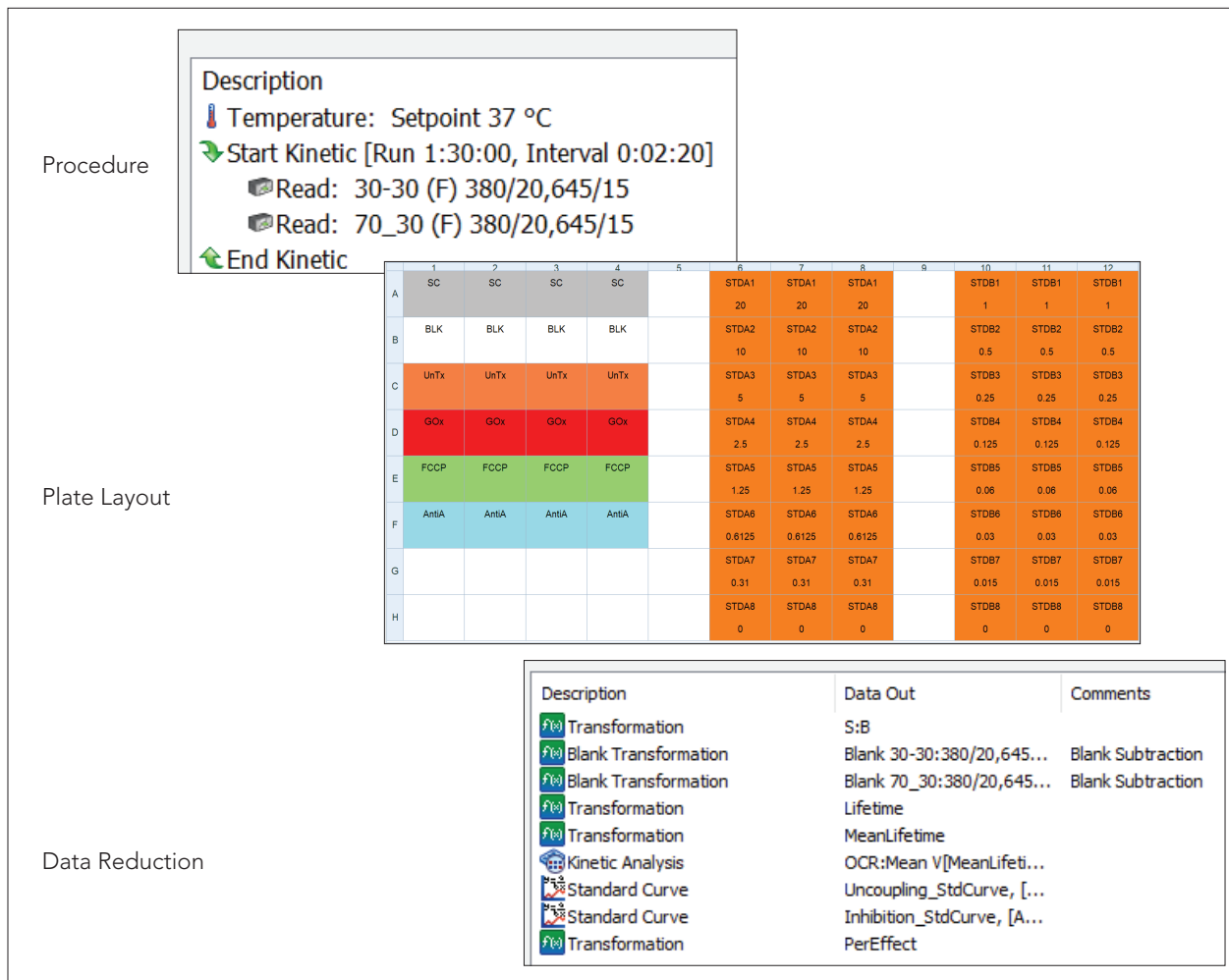


Figure 2. A summary of the AgilentpHX.prt procedure, plate layout, and data reduction steps as shown from within Gen5 software.

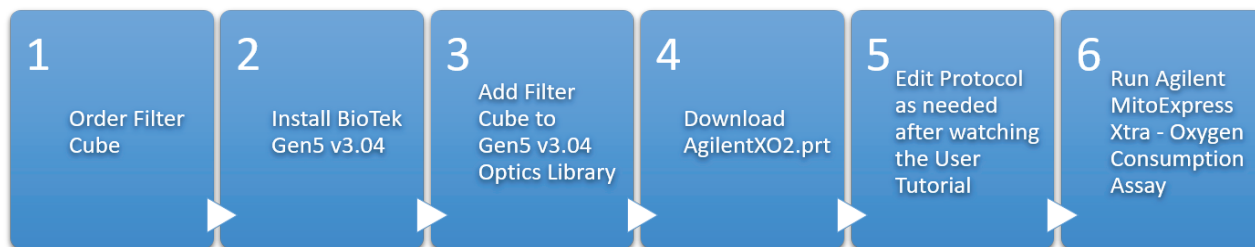


Figure 3. Top level implementation steps for the Agilent MitoXpress Xtra – Oxygen Consumption Assay with BioTek’s Cytation 1, Cytation 5, Synergy H1, or Synergy Neo2 instruments. These resources are designed for models equipped with Time-Resolved Fluorescence (TRF) capability.