

BioTek Resources for Agilent pH-Xtra™ Glycolysis Assay



Introduction

The Agilent pH-Xtra™ Glycolysis Assay allows direct, real-time, kinetic analysis of extracellular acidification rates (ECA/ECAR). 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 the BioTek Cytation™ 1, Cytation™ 5, Synergy™ H1, or Synergy™ Neo2 instruments equipped with TRF capability.



Agilent pH-XTRA Glycolysis Assay User Tutorial:

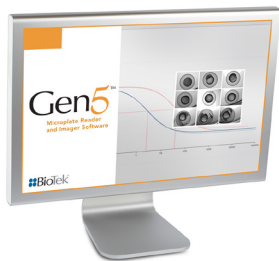
<https://www.biotek.com/applications/cell-based-assays.html>



Filter Cube P/N 8040588 FLTR BLK PH-XTRA GLYCOLYSIS ASBY (Cytations, Synergy H1)

Filter Cube P/N 1035124 CUBE 124 PH-XTRA GLYCOLYSIS ASBY (Synergy Neo2):

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



Gen5 Data Analysis Protocol: AgilentpHX.prt

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

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

Key Words:

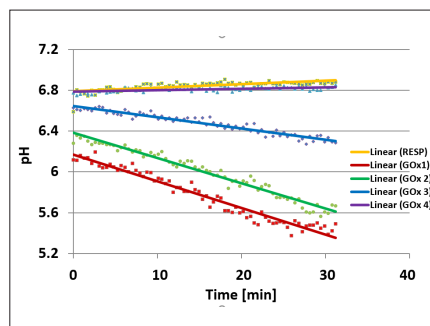
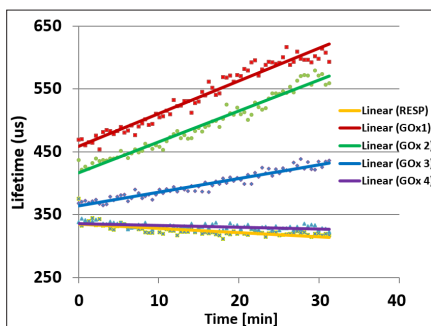
Glycolysis

Agilent pH-Xtra

Extra Cellular Acidification

ECAR

Luxcel



Data: H+_ECAR	
	1
A	7.108E-008 H+ ECAR 1.579E-009
B	7.288E-008 H+ ECAR 1.620E-009
C	8.023E-007 H+ ECAR 1.783E-008
D	7.729E-007 H+ ECAR 1.717E-008

Figure 1. Example data of a glucose oxidase titration performed on the Synergy H1 illustrates the detection principle of the Agilent pH probe: higher lifetime signals (left) equate to lower sample pH values (middle). pH values can then be converted to H+ and ECAR using Gen5 software (right).

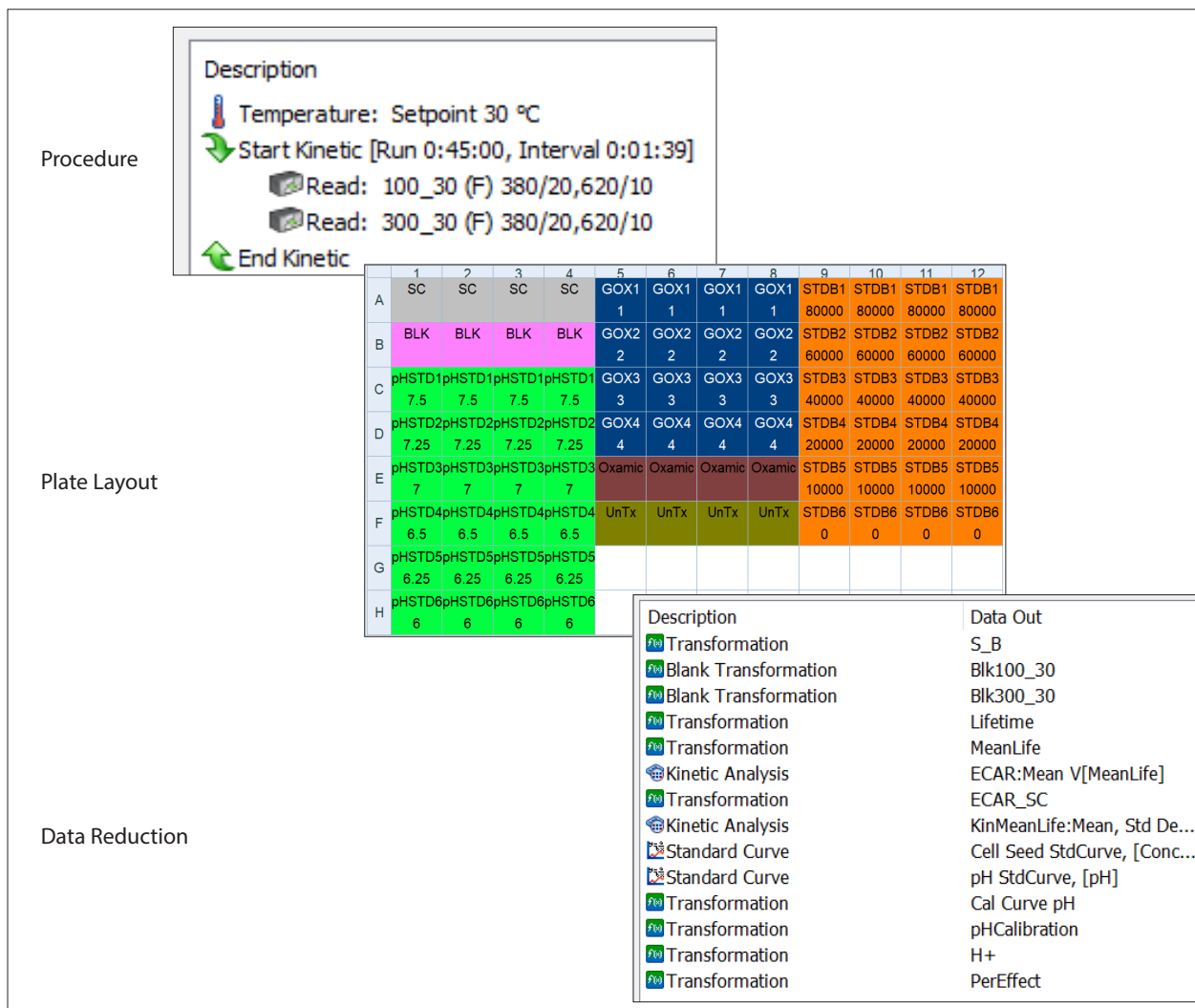


Figure 2. A summary of the AgilentpHX.prt procedure, plate layout, and data reduction steps as shown from within Gen5 software.

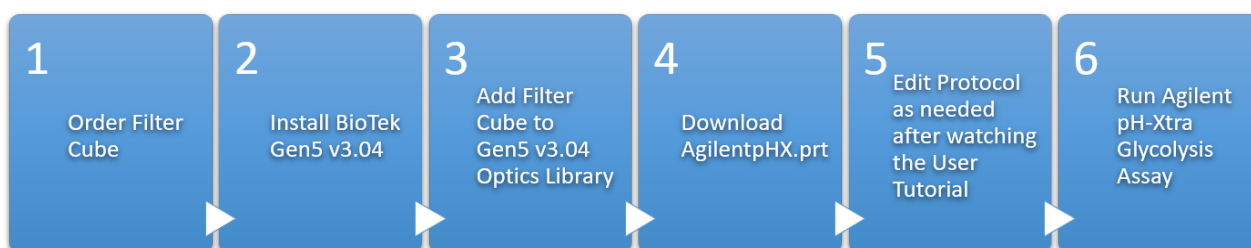


Figure 3. Top level implementation steps for the Agilent pH-Xtra Glycolysis Assay with the BioTek Cytation 1, Cytation 5, Synergy H1, or Synergy Neo2 instruments. These resources are designed for models equipped with Time Resolved Fluorescence (TRF) capability.