Suppliers of G6PD assay reagents

Dear colleagues,

Many participants have been notified by Trinity Biotech that production of the 345 assay kit for the quantitation of G6PD activity has been suspended until the end of 2017. At the time of this notice, I can see no further information on the Trinity Biotech website although contact details are provided in the notification from Trinity Biotech. The table below shows details of the different providers' kits and reagent systems registered by participants in the UK NEQAS Haematology G6PD quantitative assay scheme.

<table>
<thead>
<tr>
<th>Method</th>
<th>Web address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinity Biotech 345</td>
<td><a href="http://www.trinitybiotech.com/area/g-6-pdh/">http://www.trinitybiotech.com/area/g-6-pdh/</a></td>
</tr>
<tr>
<td>Sentinel Diagnostics</td>
<td><a href="http://www.sentinel.it/en/">http://www.sentinel.it/en/</a></td>
</tr>
<tr>
<td>Randox Reagent</td>
<td><a href="http://www.randoxonlinestore.com/Reagents/G-6-pdh-assay-p-8165">http://www.randoxonlinestore.com/Reagents/G-6-pdh-assay-p-8165</a></td>
</tr>
<tr>
<td>Pointe Scientific</td>
<td><a href="http://www.pointescientific.com/diagnostic_reagents/product/44">http://www.pointescientific.com/diagnostic_reagents/product/44</a></td>
</tr>
<tr>
<td>BCS Biotech</td>
<td>None available - ? no longer trading</td>
</tr>
<tr>
<td>Instruchemie</td>
<td><a href="http://instruchemie.nl/">http://instruchemie.nl/</a></td>
</tr>
<tr>
<td>In-house reagent</td>
<td>None available – UK NEQAS may be able to facilitate exchange of information between sites</td>
</tr>
<tr>
<td>“Other” or no method registered</td>
<td>None available – these participants have not provided method details other than assay temperature.</td>
</tr>
</tbody>
</table>

Information from the websites of these alternative suppliers is attached to this document with a copy of the notice from Trinity Biotech. Some details of other manufacturers of kits that are not registered by participants in the UK NEQAS scheme are also attached in this document with details from their websites.

Inclusion of any manufacturer in this document does not imply endorsement of the product by UK NEQAS and none of the kits have been validated by us for use.

If you would like further assistance or can offer additional information that may be of use to other participants, please contact me directly (barbara.delasalle@whht.nhs.uk).

With best regards,

Barbara De la Salle
Director, UK NEQAS Haematology
17th May 2017
Bray, Ireland

Notification re: Suspension of G6PDH 345A & 345B Kits

Dear Valued Customer,

Trinity Biotech regrets to inform you that we will temporarily suspend, with immediate effect, the manufacture of the following products:

- Code 345A, Glucose-6-Phosphate Dehydrogenase (G-6-PDH)
- Code 345B, Glucose-6-Phosphate Dehydrogenase (G-6-PDH)

Trinity Biotech took the decision to suspend these products due to our inability to consistently manufacture. Trinity Biotech will continue to support all products currently in use until such time as they expire.

The company has already initiated a project to reinstate these products in 2018. All customers will receive an update on progress in November 2017.

Trinity Biotech sincerely apologises for the inconvenience due to the suspension. If you have any questions regarding this notification, please don’t hesitate to contact us at micheal.roche@trinitybiotech.com or claire.collins@trinitybiotech.com

Yours sincerely,

Micheál Roche
Vice President of Sales and Marketing ID/POC/CC
Follow the links on the page under ‘Laboratory’ to Clinical Chemistry and then Reagents

**Glucose-6-phosphate dehydrogenase**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17005</td>
<td>G6P-DH 124 mL (1x100+1x2+1x2+1x20) Enzymatic UV method with NADP on erythrocytes - Wavelength 340 nm - THREE REAGENTS, stable at least 4 weeks after preparation - Kinetic reading - Lag phase 0 sec - Reading 3 min - Total reaction time 8 min (erythrocytes). Recommended controls: (REF G5888 Control Deficit, REF G5029 Control Intermediate and REF G6888 Control Normal) – Available through Trinity Biotech - Ireland.</td>
</tr>
</tbody>
</table>

100 mL  
Colorimetric
G-6-pdh assay

<table>
<thead>
<tr>
<th>Product</th>
<th>Method</th>
<th>Size</th>
<th>Catalog</th>
<th>Price</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-6-pdh assay</td>
<td>UV</td>
<td>R1 1 x 100ml, R2 1 x 2ml</td>
<td>PD410</td>
<td>$156.01</td>
<td>1</td>
</tr>
</tbody>
</table>

Shipping costs will be added at the checkout stage, click here for charges.

- **Format**
  - **Lyophilized**
- **Assay Range** 154 - 4303U/L
- **Working Stability** 15-25 °C
- **Working Stability** 2-8 °C 28 days

**Intended Use**
For the quantitative in vitro determination of Glucose-6-Phosphate Dehydrogenize in erythrocytes. This product is suitable for both manual and automated use.

**Clinical Significance**
The enzyme Glucose-6-Phosphate Dehydrogenize (G6PDH) plays a major role in protecting the red blood cells from oxidative damage which can alter the structure causing them to lyse.

G6PDH deficiency is one of the most common enzyme deficiencies in the world, it is a genetic disorder resulting from one or more mutations in the gene coding for G6PDH. Mutation can affect the stability or functionality of the enzyme and ultimately leads to decreased enzyme activity.

Hemolytic anemia is perhaps the most common problem resulting from G6PDH deficiency and occurs when the red blood cells are destroyed at an accelerated rate before the body can replace them. G6PDH deficiency may also be associated with jaundice.

**Principle**
The enzyme activity is determined by measurement of the rate of absorbance change at 340 nm due to the reduction of NADP+.

**Available Applications**
- Various
For the quantitative, kinetic determination of glucose-6-phosphate dehydrogenase (G6PD) in blood at 340nm. For in vitro diagnostic use only.

Principle

Glucose-6-phosphate dehydrogenase (G6PD, D-glucose-6-phosphate: oxidoreductase, EC 1.1.1.49) catalyzes the first step in the pentose phosphate shunt, oxidizing glucose-6-phosphate (G-6-P) to 6-phosphogluconate (6-PG) and reducing NADP to NADPH. This procedure is a modification of the spectrophotometric methods of Kornberg and Horecker and of Lohr and Waller, involving the following reaction: Nicotinamide adenine dinucleotide phosphate (NADP) is reduced by G6PD in the presence of G-6-P. The rate of formation of NADPH is proportional to the G6PD activity and is measured spectrophotometrically as an increase in absorbance at 340nm. Production of a second molar equivalent of NADPH by erythrocyte 6-phosphogluconate dehydrogenase (6-PGDH) is prevented by use of maleimide, an inhibitor of 6-PGDH.
## HEMATOLOGY

### Assay Of Enzymatic Activities

<table>
<thead>
<tr>
<th>REF.</th>
<th>PRODUCT</th>
<th>SPECIFICATION</th>
<th>PRICE</th>
<th>DOCUMENTATION</th>
<th>ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>063</td>
<td><strong>Pyruvate kinase</strong></td>
<td>20 tests. Enzymatic reaction.</td>
<td>0,10€</td>
<td>Product Info</td>
<td></td>
</tr>
<tr>
<td>064</td>
<td><strong>Glucose 6- Phosphate Dehydrogenase</strong></td>
<td>20 tests. Enzymatic reaction.</td>
<td>0,10€</td>
<td>Product Info</td>
<td></td>
</tr>
</tbody>
</table>

[Order](#)
**G6PDH - GLUCOSE 6 PHOSPHATE DEHYDROGENASE**

https://www.bensrl.it

<table>
<thead>
<tr>
<th>Reference</th>
<th>Size</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>G6P8906</td>
<td>285 T- 4x15mL</td>
<td><strong>G6PDH - GLUCOSE 6 PHOSPHATE DEHYDROGENASE</strong></td>
</tr>
<tr>
<td>G6P8905T</td>
<td>285 T- 20x3mL</td>
<td>G6PDH QUANTITATIVE KINETIC UV assay on WHOLE BLOOD.</td>
</tr>
<tr>
<td>G6P8905</td>
<td>285 T- 20x3mL</td>
<td><strong>G6PDH - GLUCOSE 6 PHOSPHATE DEHYDROGENASE</strong></td>
</tr>
<tr>
<td>G6P8906</td>
<td>285 T- 4x15mL</td>
<td>G6PDH QUANTITATIVE KINETIC UV assay on WHOLE BLOOD.</td>
</tr>
<tr>
<td>G6P8905T</td>
<td>285 T- 20x3mL</td>
<td>G6PDH QUANTITATIVE KINETIC UV assay on WHOLE BLOOD.</td>
</tr>
<tr>
<td>G6P8905</td>
<td>285 T- 20x3mL</td>
<td>G6PDH QUANTITATIVE KINETIC UV assay on WHOLE BLOOD.</td>
</tr>
<tr>
<td>G6CAL3</td>
<td>2 x 0.5 mL</td>
<td><strong>G6PDH CALIBRATORS</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lyophilized calibrators for QUANTITATIVE UV determination of Glucose-6-Phosphate Dehydrogenase (G6PDH) and COLORIMETRIC of TOTAL HEMOGLOBIN on ERYTHROCYTES.</td>
</tr>
<tr>
<td>G6CON</td>
<td>3 x 0.5 mL</td>
<td><strong>G6PDH CONTROLS SET</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lyophilized controls for QUANTITATIVE UV determination of Glucose-6-Phosphate Dehydrogenase (G6PDH) and COLORIMETRIC of TOTAL HEMOGLOBIN on ERYTHROCYTES.</td>
</tr>
</tbody>
</table>
G-6-PD quantitative kit(s)

Available in a box for 300 tests (Cat.No OSMMR300) or 2000 tests (Cat.No OSMMR2000). Our 2,000 test kit is available in two formats to suit the needs of big and small screening centers. Thus, there is a 20 vials X 100 test format (Cat.No OSMMR2000/100) and a 4 vials X 500 test format (Cat.No OSMMR2000/500). Each vial is stable for 5 days after reconstitution refrigerated. Therefore, our product range covers the needs of labs performing 20 - 2000 tests per day. It is a fully quantitative test, very easily automated. Results obtained in U/g Hb. Measured at 340nm in kinetic mode.

Available as a box containing 10 single test vials (Cat.No MMR010). Suitable for small or private labs. Can be worked on all automated analyzers or manually. No chemicals lost! A very easy, two step protocol will give you results in less than 15 minutes. It can be also used with a microplate reader or a simple spectrophotometer. Measured at 340nm in kinetic mode.

Available as a diaphorase - color reagent kit, in a box of 100 (1 X 100 test vial; Cat.No OSMMR-D100) or 1000 tests (10X100 test vials; Cat.No OSMMR-D1000). Each vial is stable for 5 days after reconstitution refrigerated. Measured at 550nm in kinetic mode.

G-6-PD qualitative kit (UV lamp method)

Available in a box of 500 (SQMMR500, 10 vials X 50 tests) or 1250 tests (SQMMR1250, 5 vials X 250 tests). Visual estimation of G-6-PD activity under special UV lamps.
G-6-PDH

DETERMINATION OF GLUCOSE-6-PHOSPHATE DEHYDROGENASE (EC 1.1.1.49) IN ERYTHROCYTES HAEMOLYSATE

Enzymatic method
Suitable for all analyzers – 300 tests
Product insert with instructions for automated and manual procedures
Stability reagents > 8 years after production
PK / G-6-PDH controls available

G-6PDH & PK in 1 sample
Haemolysate 8 hours stable

Settings for automatic analyzers

Manual procedure

100 µl sample
1000 µl NADP reagent
Mix
Incubate for 5 min.
2000 µl Buffer reagent
Measure reaction rate during 5 minutes
G-6-PDH results

G-6-PDH kinetic measurements

Linearity: 4500 U/I
Mean CV's: 2.28%
Mean recovery: 99.6%
Correlation compared to other manufacturers: 0.991

Product name | Product no. | Quantity
--- | --- | ---
G-6-PDH Reagent Set | 2958 | 25-300 tests
PK / G-6-PDH Calibrator | 2971 | 1 x 500 µl
PK / G-6-PDH Control Deficient Level | 3141 | 1 x 500 µl
PK / G-6-PDH Control Normal Level | 3142 | 1 x 500 µl
PK / G-6-PDH Control High Level | 3143 | 1 x 500 µl
PK / G-6-PDH Dextran Haemolyzing Reagent | 3028 | 1 x 50 ml

Internet: www_instruchemie.nl  Email: info@instruchemie.nl  Telephone: (+31)(0)506-634851  Fax: (+31)(0)506-634755

CDH336v5 Field Notice G6_20170519
Issued 30-8-17