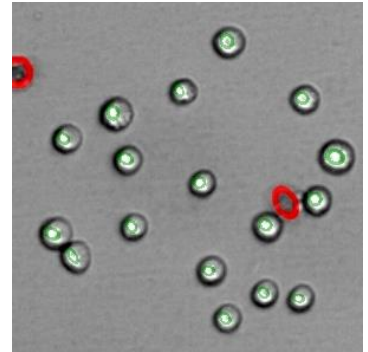


## Trypan Blue

### General Purpose

A common method to monitor a culture run is a viability test by using *Trypan Blue*. Customary systems will usually take a sample volume of about 300  $\mu\text{L}$  to 600  $\mu\text{L}$  to evaluate the sample status which takes about 2 to 3 minutes. SYNENTEC's Trypan Blue assay approach requires a sample volume of 20  $\mu\text{L}$  only which is scanned in less than 2 seconds. No major consumable expenses reduce the cost per sample to \$ 0.05 and less.



Short Note  
SN-B004-XVII-04

### Result Table

• <i>Viability</i>	<i>Percentage of viable cells in your sample</i>
• <i>VCD</i>	<i>Viable Cell Density [#/ml]</i>
• <i>CD</i>	<i>Cell Density [#/ml]</i>
• <i>Aggregates per ml</i>	<i>Number of aggregates per ml</i>
• <i>Ratio of Aggregates</i>	<i>Percentage ratio of aggregates in the sample</i>
• <i>Reactor ID</i>	<i>Name of the Reactor</i>
• <i>Sample ID</i>	<i>Name of the Sample</i>
• <i>Avg Cell Size</i>	<i>Average of the Cell Size [<math>\mu\text{m}^2</math>]</i>
• <i># of Aggregates</i>	<i>Number of aggregates</i>
• <i>Final Dilution</i>	<i>Dilution factor</i>
• <i>Volume per Well</i>	<i>Sample Volume per well</i>
• <i>Cell Count</i>	<i>Number of cells listed per well</i>

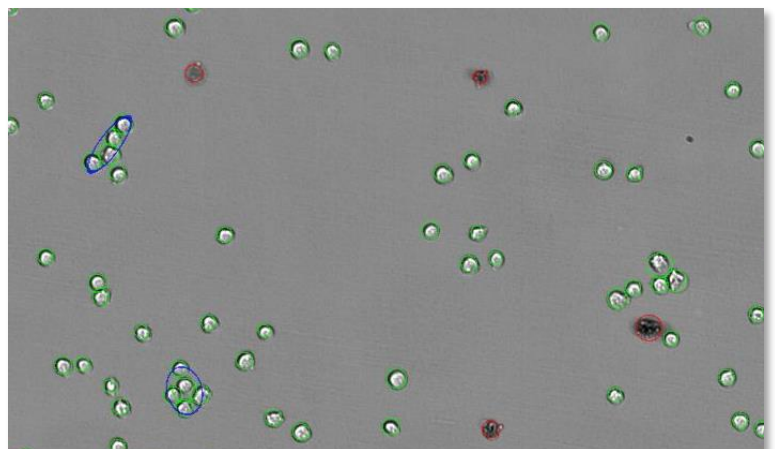
### Example

This example shows a typical result image of a Trypan Blue analysis.

Marked green = viable cells

Marked red = dead cells

Marked blue = aggregated cell



## Dilution Table

The following table refers to the Corning Costar Half Area plate (# 3695)

expected cell density		final dilution [1]	PBS-- [ $\mu$ l]	sample [ $\mu$ l]	TryB 0,02% [ $\mu$ l]
1x10 E7	⇒	1:80	780	20	800
5x10 E6	⇒	1:40	380	20	400
1x10 E6	⇒	1:20	180	20	200
5x10 E5	⇒	1:10	80	20	100
1x10 E5	⇒	1:5	40	20	40
less than 1x10 E5	⇒	1:2	0	20	20

## Plate Layout

**Plate Layout Configuration**

Group Configuration  
 Group Name:  Start Count:

SubGroup Configuration  
 Replicates Horizontal:  Wells:  SubGroup Count:   
 Replicates Vertical:   
 Numbering Direction:

Group Properties

Name	Start	Direction	Step	Physical Unit
Reactor ID	1	▶	0	1
Sample ID	1	▶	0	1
Final dilution	1:40	▶	1:1	1
Volume per Well	40	▶	0	$\mu$ l

*The plate layout must be edited for your chosen settings.*