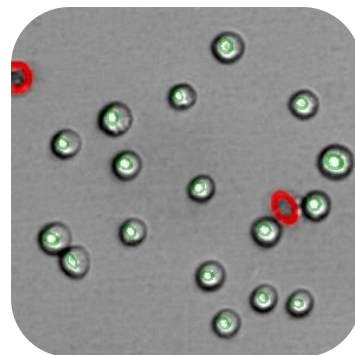


## Trypan Blue

### 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. SynenTecs 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-XV-02

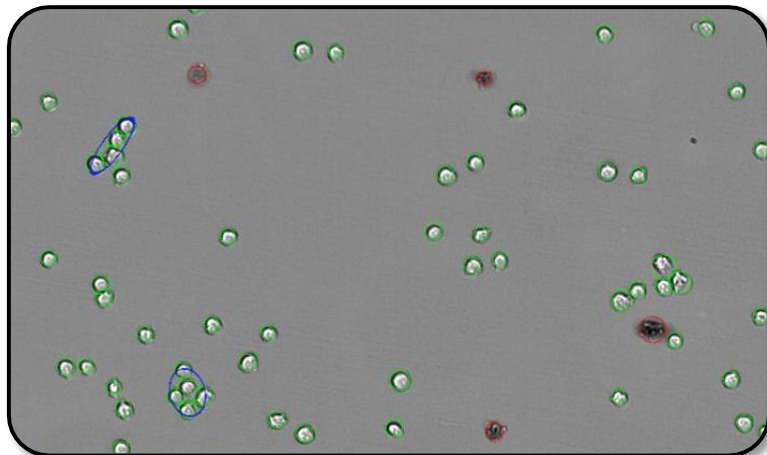
### Result Table

• <b>Viability</b>	<i>Percentage of viable cells in your sample</i>
• <b>VCD</b>	<i>Viable Cell Density [#./ml]</i>
• <b>CD</b>	<i>Cell Density [#./ml]</i>
• <b>Aggregates per ml</b>	<i>Number of aggregates per ml</i>
• <b>Ratio of Aggregates</b>	<i>Percentage ratio of aggregates in the sample</i>
• <b>Reactor ID</b>	<i>Name of the Reactor</i>
• <b>Sample ID</b>	<i>Name of the Sample</i>
• <b>Avg Cell Size</b>	<i>Average of the Cell Size [<math>\mu\text{m}^2</math>]</i>
• <b># of Aggregates</b>	<i>Number of aggregates</i>
• <b>Final Dilution</b>	<i>Dilution factor</i>
• <b>Volume per Well</b>	<i>Sample Volume per well</i>
• <b>Cell Count</b>	<i>Number of cells listed per well</i>
• <b>Total Aggregate Size</b>	<i>Sum of all Aggregate Sizes</i>
• <b>Processed Area</b>	<i>Fraction in percentage of the measured area on the total area of the 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  

	Wells	SubGroup Count
Replicates Horizontal	<input type="text" value="1"/>	<input type="text" value="1"/>
Replicates Vertical	<input type="text" value="8"/>	<input type="text" value="1"/>

Numbering Direction

Group Properties

Name	Start	Direction	Step	Physical Unit
Reactor ID	<input type="text" value="1"/>	<input type="button" value="▶"/>	<input type="text" value="0"/>	<input type="text" value="1"/>
Sample ID	<input type="text" value="1"/>	<input type="button" value="▶"/>	<input type="text" value="0"/>	<input type="text" value="1"/>
Final dilution	<input type="text" value="1:40"/>	<input type="button" value="▶"/>	<input type="text" value="1:1"/>	<input type="text" value="1"/>
Volume per Well	<input type="text" value="40"/>	<input type="button" value="▶"/>	<input type="text" value="0"/>	<input type="text" value="μl"/>

The plate layout must be edited for your chosen settings.