

IntuBio ApS

Making Microbiology Go Live

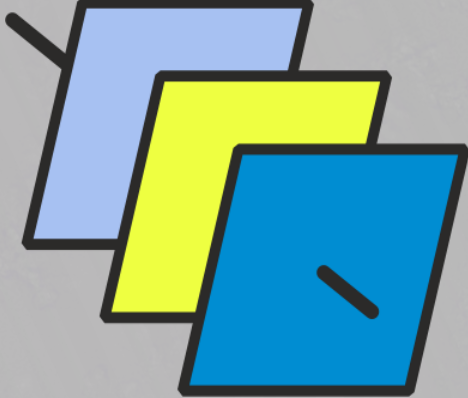
IntuBio ApS

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IntuGrow

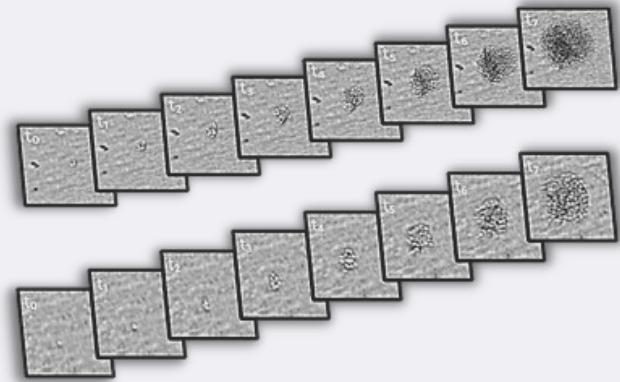
Fast CFU Quantification

Scale-down and Automate

The century-old microbial detection methods of counting colonies, remains the golden standard.

The long time-to-result first reveal the microbiological quality long after finished processing, leading to increased scrap cost due to unrevealed contaminations and product loss due to overprocessing.

The IntuGrow solutions enables a reduction of analytical time from 48-72 hours to 3-6 hours, while following the standard microbiological principles of current methods (same cultivation media and incubation temperatures). This is done by scaling down and automating colony counting to reduce time-to-result and manual labour associated with microbiological analysis.



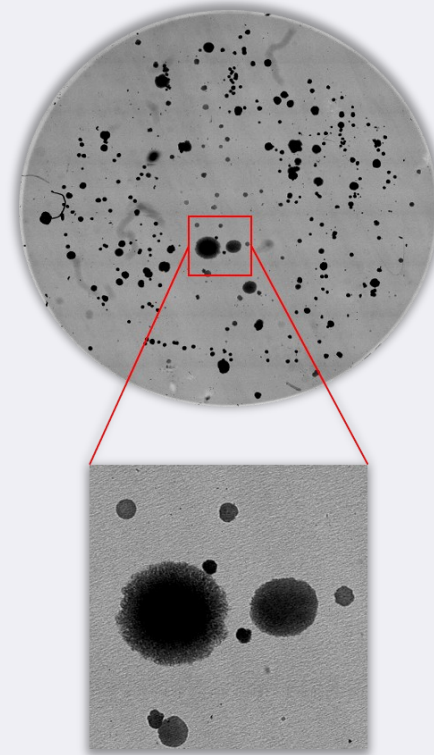
Tracking of colony formation from single cells to mature microcolonies

Same Principle, Smarter Approach

The patented optical system combined with the innovative cultivation-based methodology, combines the traditional methods with high-throughput analysis, giving results in a fraction of the time compared to current methods.

With the possibility of sample enrichment by filtration (1-100 ml) and dilutions the system has an extremely adaptable detection range ($>0,01$ CFU/ml).

The time-lapse imaging captures the colony formation when the diameter is approximately $10\ \mu\text{m}$, where colonies are required to grow to at least $300\ \mu\text{m}$ to be observed with the naked eye. This simple scale-down allows the colonies to be detected much earlier.



Applications

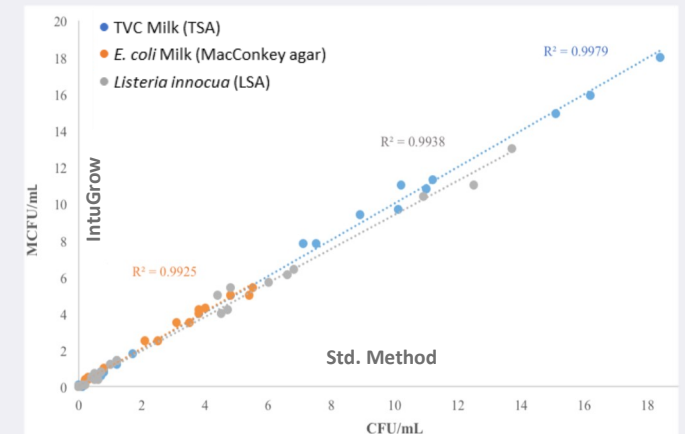
IntuGrow is ideal for liquid samples and can be integrated as a fast way of assessing CFU concentration in a time frame that permits adjustments during processing.

Pharmaceutical Industry

Characterized by low contamination tolerance and high scrap costs the pharmaceutical industry must detect contamination events as fast as possible. IntuGrow allows for the detection of these events much faster than traditional methods.

Food/Ingredients Industry

The food/ingredient industry makes products from raw materials that potentially contains pathogenic bacteria. A fast screening using IntuGrow enables detection of foodborne pathogens (such as *E. coli*, *L. monocytogenes* and *Salmonella spp.*) faster for reduced recalls and safer final products.



Comparison of IntuGrow and traditional methods. Total viable count (TVC) on tryptic soy agar (TSA), *E. coli* mixed in milk on MacConkey agar and *Listeria innocua* isolated from milk on *Listeria* Selective Agar.