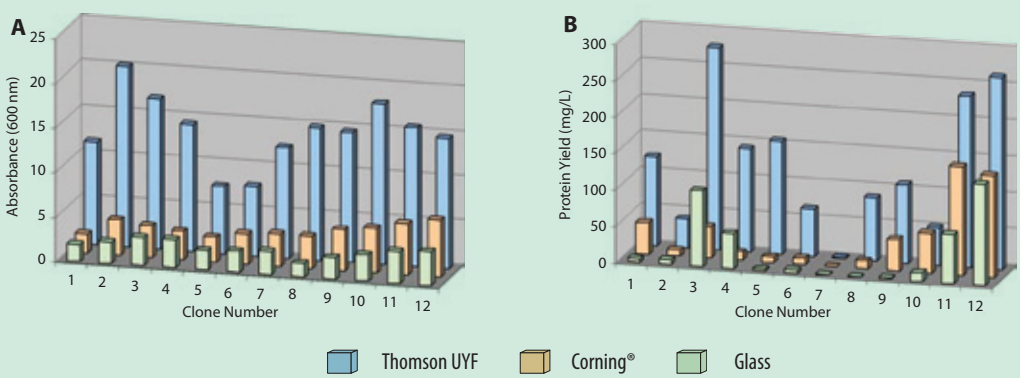
THOMSON Solutions ™
INSTRUMENT COMPANY

ULTRA YIELD™ FLASK PATENTED

Thomson Instrument Company is not affiliated with INFORS HT or their product the Multitron

Protein Expression

Pfizer ULTRA YIELD™ 610% Yield Increase*

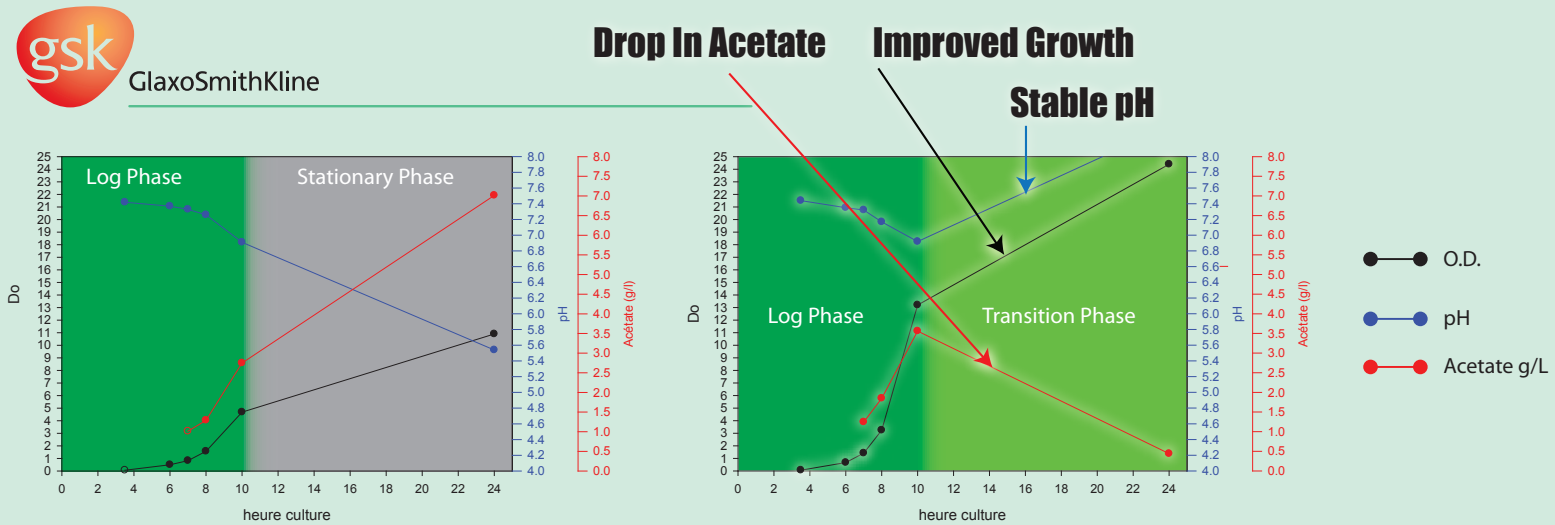


610% Yield Increase*

Effect of flask design on E. coli culture growth and production of recombinant protein. (A) The effect of flask type and growth medium on the observed optical densities of the cultures at A600 following overnight protein expression. Cultures carried out in Fernbach flasks using either LB medium or TB medium are shown, respectively, at the front (green) and in the center (orange). Cultures grown in Ultra YieldTM flasks in TB medium are shown at the back (blue). See Table 1 for a list of the recombinant proteins over expressed by the various clones. (B) The yields of expressed soluble protein (determined by protein assay and recorded as mg protein per liter of expression culture) from the IMAC columns following purification of the twelve polyHis-tagged recombinant proteins, each expressed under the three conditions described in Panel A. Clone locations in Panel B are the same as those in Panel A

*Economical parallel protein expression screening and scale-up in Escherichia coli. Journal of Structural and Functional Genomics2006 Jun;7(2):101-8. Epub 2006 Dec 23.

GlaxoSmithKline

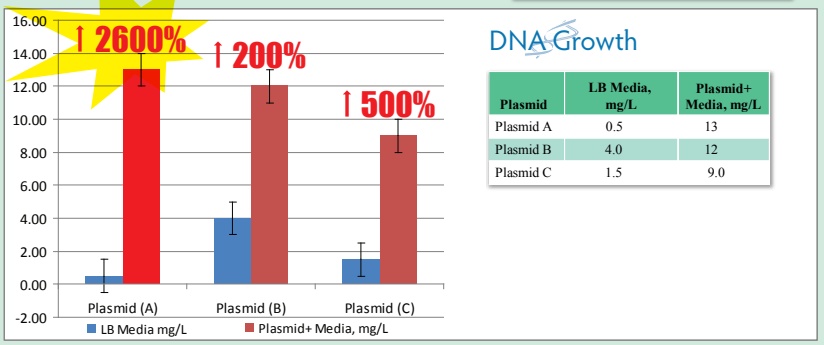


E.coli : Growth profiles **with classical glass flask** (2 L, no baffle), 400 mL Thomson medium, 400 rpm orbital shaker

E.coli : Growth profiles **with Thomson flask** (2.5L Ultra Yield Flask, baffles), 500 mL Thomson medium, 400 rpm orbital shaker

DNA Growth

AVERAGE
1000%
Yield Increase



DNA Growth

Plasmid	LB Media, mg/L	Plasmid+ Media, mg/L
Plasmid A	0.5	13
Plasmid B	4.0	12
Plasmid C	1.5	9.0

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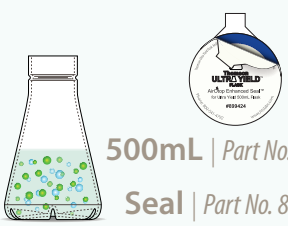
DNA Growth

2.5L | *Part No. 931136-B*

Seal | *Part No. 899425*

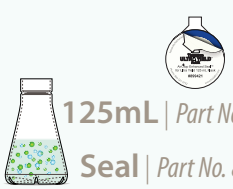


500mL | *Part No. 931141*

Seal | *Part No. 899424*

250mL | *Part No. 931144*

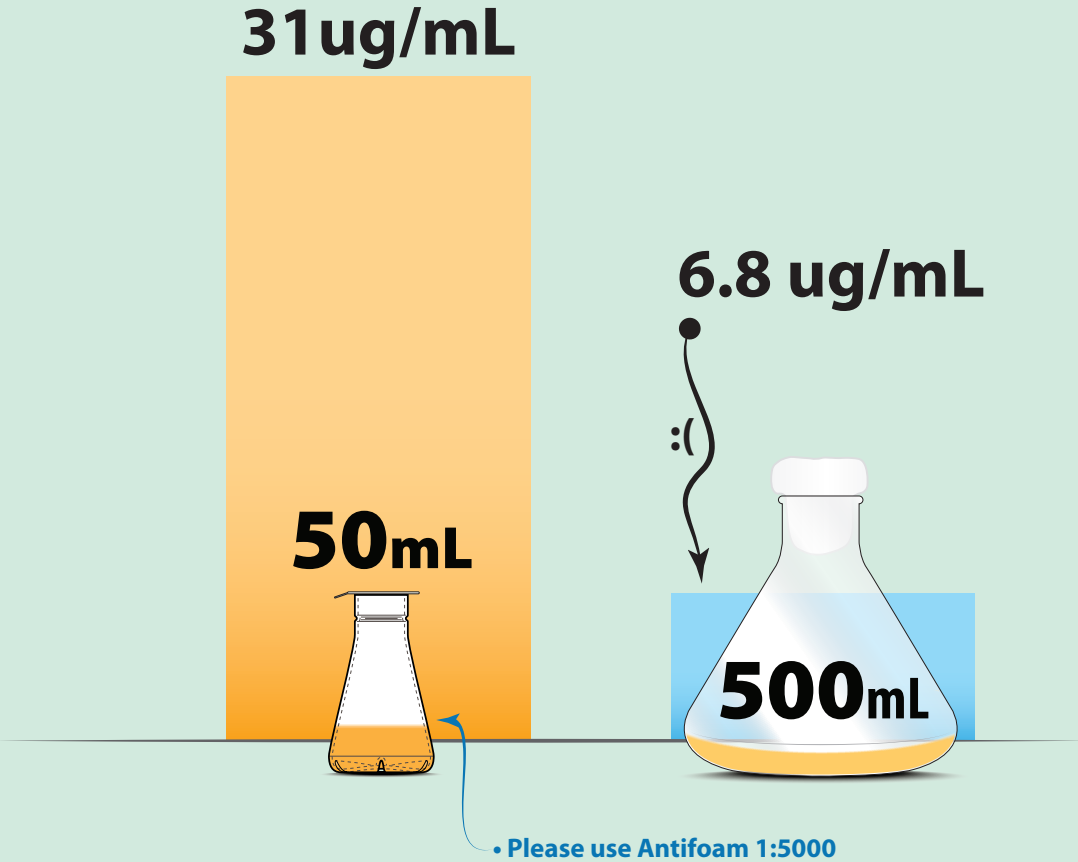
Seal | *Part No. 899423*



125mL | *Part No. 931147*

Seal | *Part No. 899421*

AirOtop™ Enhanced Seal



Media	50mL Plasmid+	500mL LB
Flask Used	Ultra Yield Flask	Baffled glass flask
Seal Used	AirOtop Enhanced Seal	Foam Plug/Bung

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