

## Protein Expression in Silantes OD-Media

Report from our customer Prof. Sklenar, Masaryk University

Bacterial strain: Escherichia coli BL21  
 Target protein: Recombinant Major Urinary Protein – I (MUP1)  
 Construct: pET28b(+)-MUP1\*  
 Antibiotics: Kanamycin (30 µg/ml)

Cultivation parameters: Temperature: 30°C  
 Reciprocal shaking

\* Zidek L, Stone MJ, Lato SM, Pagel MD, Miao Z, Ellington AD, Novotny MV. NMR mapping of the recombinant mouse major urinary protein I binding site occupied by the pheromone 2-sec-butyl-4,5-dihydrothiazole. Biochemistry 38, 9850-61 (1999)

Growth of E. coli BL21 on Silantes OD2 media, LB media and minimal media with 0,2% glucose and 0,2% glycerol

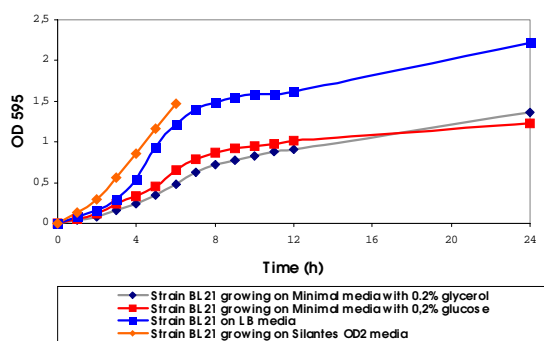


Fig. 1: The first three growth curves were measured without induction of expression of the protein. E. coli cells grown on Silantes media were induced by IPTG at  $OD_{500} = 1.2$  (the orange curve). The final optical density after 24 hours was unchanged. (Data were kindly provided by Prof. Sklenar, Masaryk University)

...The result (with Silantes OD2 media) was comparable to typical rich growth media. In comparison to glucose-minimal media, the yield on Silantes OD2 was two-times higher; the growth parameters were good. Silantes OD2 media are very convenient to use. (Prof. Sklenar, Masaryk University 2001)

| Bacterial Strain | Media                            | Yield per Litre of Media |
|------------------|----------------------------------|--------------------------|
| E. coli BL21     | Minimal media with 0,2% glycerol | 3,75 mg                  |
| E. coli BL21     | Minimal media with 0,2% glucose  | 10 mg                    |
| E. coli BL21     | LB media                         | 22 mg                    |
| E. coli BL21     | Silantes OD2 media               | 20 mg                    |