

Table 1. Main properties of bacterial IBs adjustable through process conditions.

Parameter	IBs structure features	Reference
<b>Culture time</b>	When culture time after induction increased, IBs median diameter augmented. Also, as the culture time passed, IBs showed strong binding with Congo red and Thioflavin-T (suggesting more amyloid content), and they became more resistant to proteolysis and denaturation.	(Margreiter, <i>et al.</i> , 2008, Upadhyay, <i>et al.</i> , 2012, Castellanos-Mendoza, <i>et al.</i> , 2014)
<b>Inductor concentration</b>	Low concentration of inductor (IPTG) decreased the aggregation and hydrodynamic diameter. Some IBs increased in RP content under lower inductor concentration.	(Luo, <i>et al.</i> , 2006, Margreiter, <i>et al.</i> , 2008, Jhamb & Sahoo, 2012)
<b>Growth rate</b>	At low specific growth rates, less abundant IBs were found. However, more RP was present in IBs formed at the fastest growth rate.	(Iafolla, <i>et al.</i> , 2008)
<b>Temperature</b>	IBs formed at low temperature presented some properly folded and active proteins, less impurities, and were solubilized and denatured faster than those formed at high temperature. Increase in temperature promoted RP aggregation and improved the IB production rate.	(Schein & Noteborn, 1988, Strandberg & Enfors, 1991, Jevsevar, <i>et al.</i> , 2005, de Groot & Ventura, 2006, Peternel, <i>et al.</i> , 2008)
<b>pH</b>	Relative amount of IBs increased with the decline in pH during culture. IBs formed under basic pH, presented more $\alpha$ -helices, were less resistant to proteolysis and bonded less Thioflavin-T, vs. IBs produced at acidic pH.	(Strandberg & Enfors, 1991, Castellanos-Mendoza, <i>et al.</i> , 2014, Calcines-Cruz, <i>et al.</i> , 2018)
<b>Agitation</b>	Diffused protein clusters were seen inside cells cultured in shake flasks under acoustic resonant mixing at high energy (20 g) compared with IBs formed under orbital agitation. IBs at 20 g were less resistant to proteolysis.	(Valdez-Cruz, <i>et al.</i> , 2017)

Human interferon- $\alpha$ 2 (IFN- $\alpha$ 2); interferon- $\gamma$  (IFN- $\gamma$ ); Human growth hormone (hGH); Xylanase (XynB); Alzheimer-related peptide Ab42 mutant fused to green fluorescent protein (Ab42(F19D)-GFP); green fluorescent protein (GFP); protein A from *Staphylococcus aureus* and l-galactosidase (SpA-gal); Isopropyl  $\beta$ -D-1-thiogalactopyranoside (IPTG); Not determined (N.D.); guanidinium chloride. (GnCl); Thioflavin-T (Th-T); Recombinant protein (RP).