Figure 3: Growth curve of *Btk* on LB medium at 135 rpm and 37 °C.
Figure 4: Amylase activity of *Btk* at 3 h intervals on LB medium at 135 rpm and 37 °C.
Figure 5: Amylase activity of Btk on 1% (w/v) soluble starch supplemented LB medium at 12 h at 135 rpm and 37 °C. Time interval activities not shown as maximum activity was 12 h.
**Figure 6:** α-Amylase activity of *Btk* at 6h intervals on various naturally available raw starch substrates [banana powder (BP), tapioca powder (TP), jack seed powder (JP), bengal gram powder (BgP), potato powder (PP) and taro powder (TaP)] supplemented [1% (w/v)] in LB medium. SmF was at 135 rpm and 37 °C.
Figure 9: α-Amylase activity of *Btk* on soluble starch supplemented in LB medium at 12 h at 135 rpm and 37 °C.
Figure 10: α-Amylase activity of *Btk* on banana powder [(BP), w/v] supplemented LB medium at 37 °C incubation.
Figure 11: \( \alpha \)-Amylase activity of *Btk* on Bengal gram powder [(BgP), w/v] supplemented LB medium at 37 \(^\circ\)C incubation.
Figure 12: α-Amylase activity of Btk on jack seed powder [(JP), w/v] supplemented LB medium at 37 °C incubation.
Figure 13: \( \alpha \)-Amylase activity of \( Btk \) on potato powder [(PP), w/v] supplemented LB medium at 37 °C incubation.
Figure 14: $\alpha$-Amylase activity of Btk on tapioca powder [(TP), w/v] supplemented LB medium at 37 °C incubation.
Figure 15: α-Amylase activity of Btk on taro powder [(TaP), w/v] supplemented LB medium at 37 °C incubation.
Figure 17: Sephadex G-100 elusion profile of the partially purified (40-60% ammonium sulphate protein fraction) α-amylase obtained by the cultivation of Btk on potato powder (10% w/v) supplemented LB medium after 12 h cultivation.
**Figure 19:** Effect of pH on partially purified (40-60% ammonium sulphate fraction of the supernatant) *Btk* α-amylase obtained at 12 h fermentation of PP (10% w/v) supplemented LB medium. This activity was at ~32 °C (room temperature) and varying pH with 5 min incubation using 1% starch.
Figure 20: Effect of temperature on partially purified (40-60% ammonium sulphate fraction of the supernatant) *Btk* α-amylase obtained at 12 h fermentation of PP (10% w/v) supplemented LB medium. This activity was at varying temperature and pH 6.0.
Figure 21: Effect of metal salts (µM) on partially purified (40-60% ammonium sulphate fraction of the supernatant) Btk α-amylase obtained at 12 h fermentation of PP (10% w/v) supplemented LB medium. This activity was at 60 °C and 6.0 pH with 1% starch and 5 min incubation.
**Figure 22:** Effect of soluble starch concentration (%) on partially purified (40-60% ammonium sulphate fraction of the supernatant) *Btk* α-amylase obtained at 12 h fermentation of PP (10% w/v) supplemented LB medium. This activity was at 60 °C and 6.0 pH and 3 μM Ca$^{2+}$. 
Figure 23: $K_m$ and $V_{max}$ of partially purified (40-60% ammonium sulphate fraction of the supernatant) Btk $\alpha$-amylase obtained at 12 h fermentation of PP(10% w/v) supplemented LB medium.
**Figure 45:** Histogram showing mortality rate of mites by the toxicity assay using dry and powdered raw fermented 10% (w/v) PP supplemented LB medium containing mixture of endospores, Btk crystals and substrate. Treatment was made on mites after 24 h observation of transferred mites in the culture set-up. Mortality rates of the before (0 h brown bars) and after (24 h) treatment are shown here (yellow bars). Some mites were dead (about 6%) after 24 h transfer in the culture set-up (brown bars), ie., before treatment. In the control, over 90% of the mites were alive and active at 48 h.