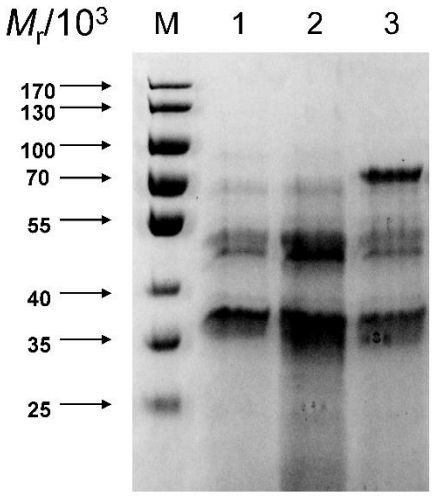

Figure S1. SDS-PAGE electrophoregram of enzyme samples from the cre*M2 version construct and the controls. Supernatant of flask cultures were produced using 250 mL bottles containing 30 ml of fermentation medium using 30 g/L glucose as carbon source and shaken at 37 ℃ in a rotary shaker at 250 rpm. The 3% seed cultures were inoculated into the fermentation medium for batch fermentation. 1% xylose was added after 10 h of growth to initiate the expression. (M) Marker (1) *B. licheniformis* ADP1 (2) BllMA (3) BllMA- cre*M2.