

# Expression and Characterization of a Cold-adapted Alginate Lyase with Exo/endo-type Activity from a Novel Marine Bacterium *Alteromonas portus* HB161718<sup>T</sup>

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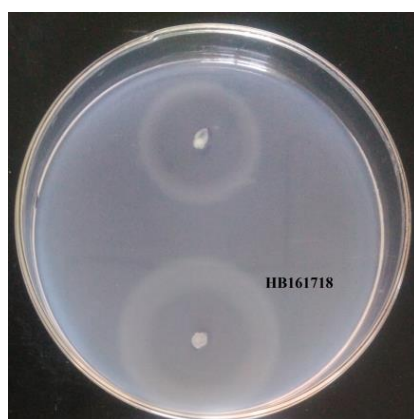
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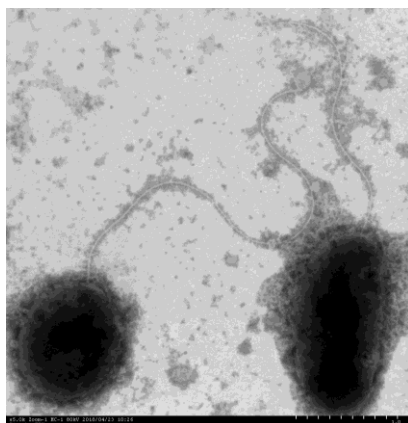
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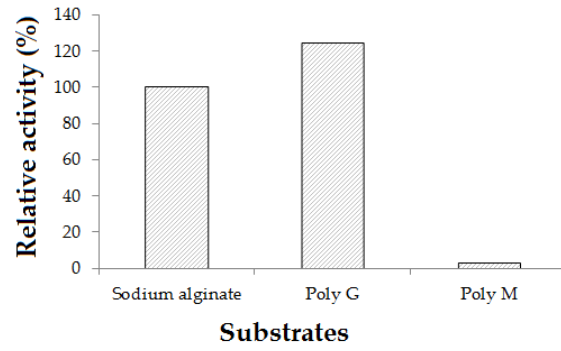
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**Figure S1.** Gellation reactions observed on the plate covered by CaCl<sub>2</sub> solution



**Figure S2.** Transmission electron micrograph of cells from a 12-hour-old culture on marine agar 2216 of strain HB161718<sup>T</sup>. Bar, 1  $\mu$ m.



**Figure S3.** Substrate specificity of the recombinant enzyme ALg2951