

**Supplementary Material**

**Hepatocyte growth factor (*HGF*) gene: molecular characterisation of complete coding sequence and expression profile in Tarim red deer (*Cervus hanglu yarkandensis*) antlers**

Chuan Lin<sup>A,B</sup>, Miao Wang<sup>A,B</sup>, Xue Rui<sup>A,B</sup>, Hong Chen<sup>A,B</sup>, Hao Lv<sup>A,B</sup>, Fei Huang<sup>C,D</sup>, Qinghua Gao<sup>A,B</sup>, and Chunmei Han<sup>A,B,\*</sup>

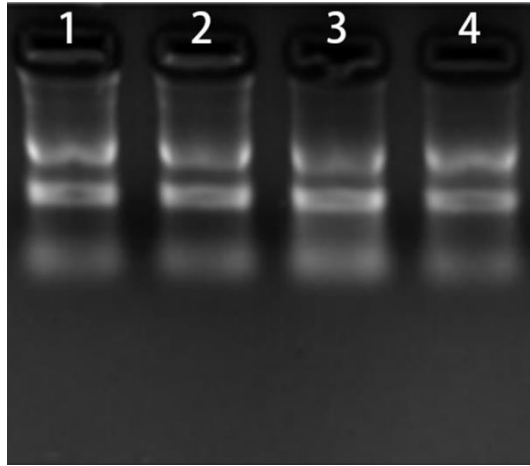
<sup>A</sup>College of Animal Science and Technology, Tarim University, Alar 843300, China. Email: linchuan0528@163.com, 813253256@qq.com, 1265607749@qq.com, 2512489725@qq.com, 3279049034@qq.com, gqhdky@126.com

<sup>B</sup>Key Laboratory of Tarim Animal Husbandry Science and Technology, Xinjiang Production and Construction Corps, Alar 843300, China.

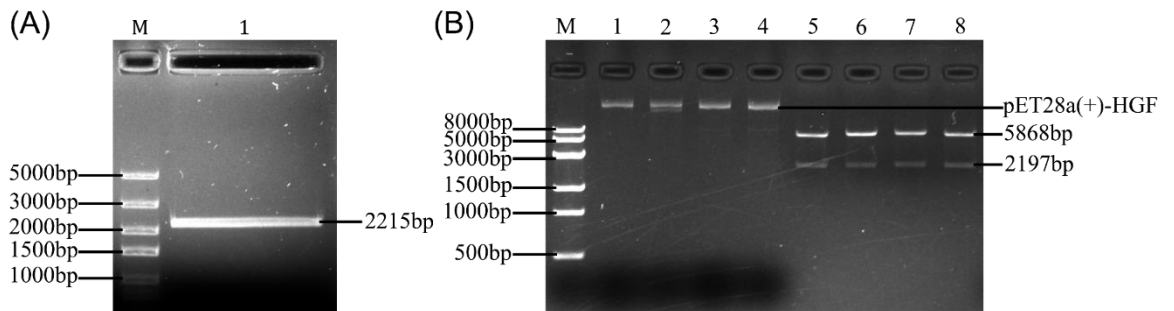
<sup>C</sup>College of Life Science and Technology, Tarim University, Alar 843300, China. Email: 979754538@qq.com

<sup>D</sup>Key Laboratory of Protection and Utilization of Biological Resources in Tarim Basin, Xinjiang Production and Construction Corps, Alar 843300, China.

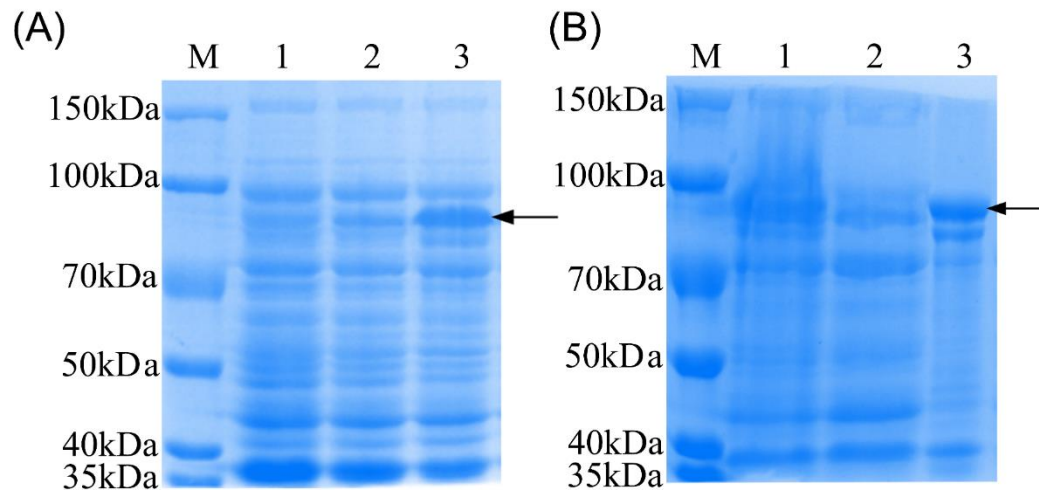
\*Correspondence to: Chunmei Han College of Animal Science and Technology, Tarim University, Alar 843300, China Email: linchuan0528@163.com, 813253256@qq.com, 1265607749@qq.com, 2512489725@qq.com, 3279049034@qq.com, gqhdky@126.com, chunmeihan224@163.com



**Figure S1.** Agarose gel electrophoresis of total RNA extracted from different Tarim red deer antler tissues. Lane 1: velvet skin; Lane 2: mesenchyme; Lane 3: cartilage; Lane 4: bone.



**Figure S2.** (a) Agarose gel electrophoresis of *HGF* gene. M: Trans5K DNA Marker; Lane 1: amplified *HGF* gene. (b) Identification of recombinant plasmid by enzymatic digestion. M: Trans8K DNA Marker; Lane 1-4: recombinant pET28a(+)-*HGF* plasmid; Lane 5-8: recombinant pET28a(+)-*HGF* plasmid digested by *NOTI* and *BamHI*



**Figure S3.** SDS-PAGE analysis of *E.coli* proteins. (a) M: Marker 15kDa-150kDa; Lane 1: total protein of empty vector transformed bacteria; Lane 2: total protein of uninduced recombinant bacteria; Lane 3: total protein of induced recombinant bacteria; (b) M: Marker 15kDa-150kDa; Lane 1: total protein of induced recombinant bacteria; Lane 2: total protein of induced recombinant bacteria in supernatant; Lane 3: total protein of induced recombinant bacteria in precipitation; Arrows indicate size of recombinant protein