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| --- | --- |
| **Ligase 10C** | MGAPVPYPDPLEPRGGKHICAICGNNAEDYKHTDMDLTYTDRDYKNCESYHKCSDLCQYCRYQKDLAIHHQHHHGGSMGMSGSGTGY |
| **Ligase 10H** | MGAPVPYPDPLEPRGGKHICAICGDILDDDYDYKQTDSREGRQGFFKRTLRKDLTYSCRDYKYRESYHKCSDLCQSCRYQKALAIHHQHHHGGSMGMSGSGTGY |
| **Ligase #6** | MDYKDDDDKDGKHICAICGDTVTNTDYKTPDLTSTCRDYKNRESYHKCSDLCQYCRYQKALAMGTKREAAQEEVGSHHQHHHGGSMGMSGSGTGY |
| **Ligase #7** | MDYKDDDDKGGRHICAICGNNAEDYKHTDMDLTYTDRDYKNCESYHKCQDLCQYCRYQKALAMGIKREAVQEEVGSHHQHHHGGSMGMSGSGTGY |

**Table S2. Sequences of ligases 10C and 10H selected at 65 °C; and ligases #6 and #7 selected previously at 23 °C for comparison.**