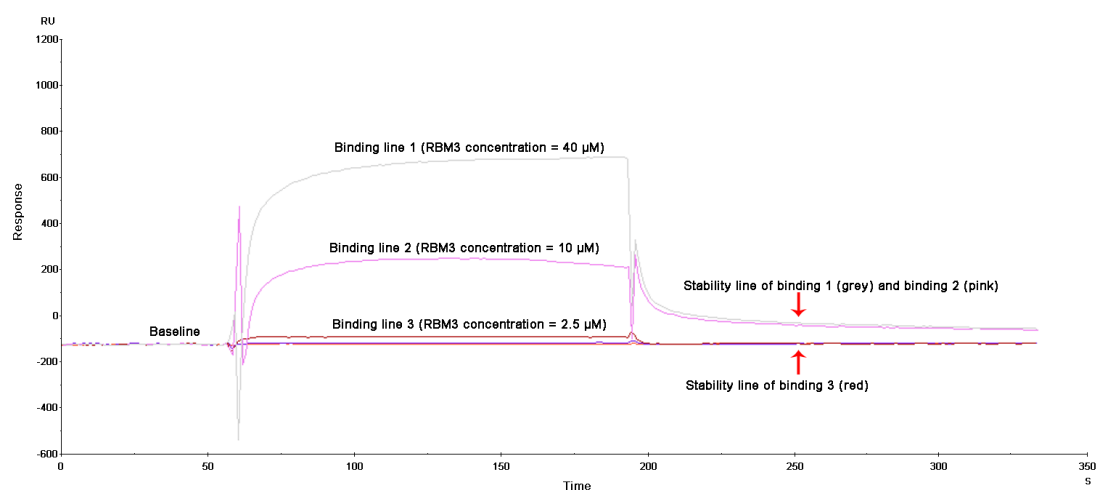


## Supplementary Material S5



### Surface plasmon resonance spectroscopy (SPR)

G3BP1 fusion protein (catalog no. Ag3728; Proteintech, Wuhan, China) was immobilized on a CM7 chip, and RBM3 fusion protein (catalog no. Ag28329; Proteintech, Wuhan, China) as analyte was injected over the chip. To analyze the binding ability, three concentrations of the RBM3 fusion protein (2.5  $\mu$ M, 10  $\mu$ M, and 40  $\mu$ M) were diluted in HBS-EP buffer (0.01 M HEPES, pH 7.4) and infused onto the sensor chip at a flow rate of 30  $\mu$ L/min for 120 s. The response unit (RU) was recorded by Biacore (Biacore X-100, GE Healthcare Inc.). After the analyte infusion was stopped, the HBS-EP buffer was poured over the chip for 120 s at a flow rate of 30  $\mu$ L/min. In comparison with the baseline, there is an increase of RU (59.0) in stability stage (10  $\mu$ M and 40  $\mu$ M concentrations of RBM3) after 120 s of chip washing. This result shows that RBM3 binds directly to the G3BP1.