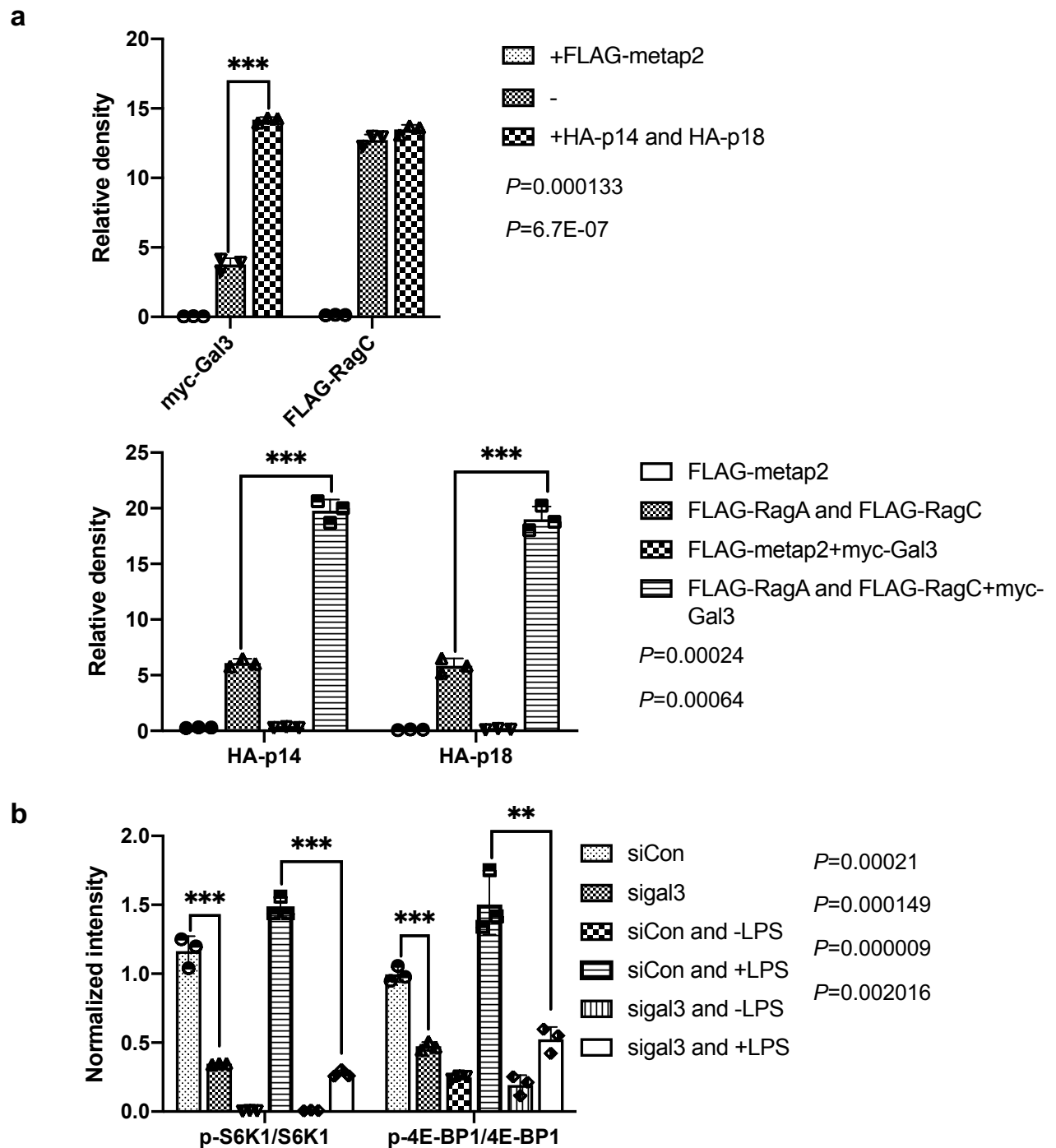
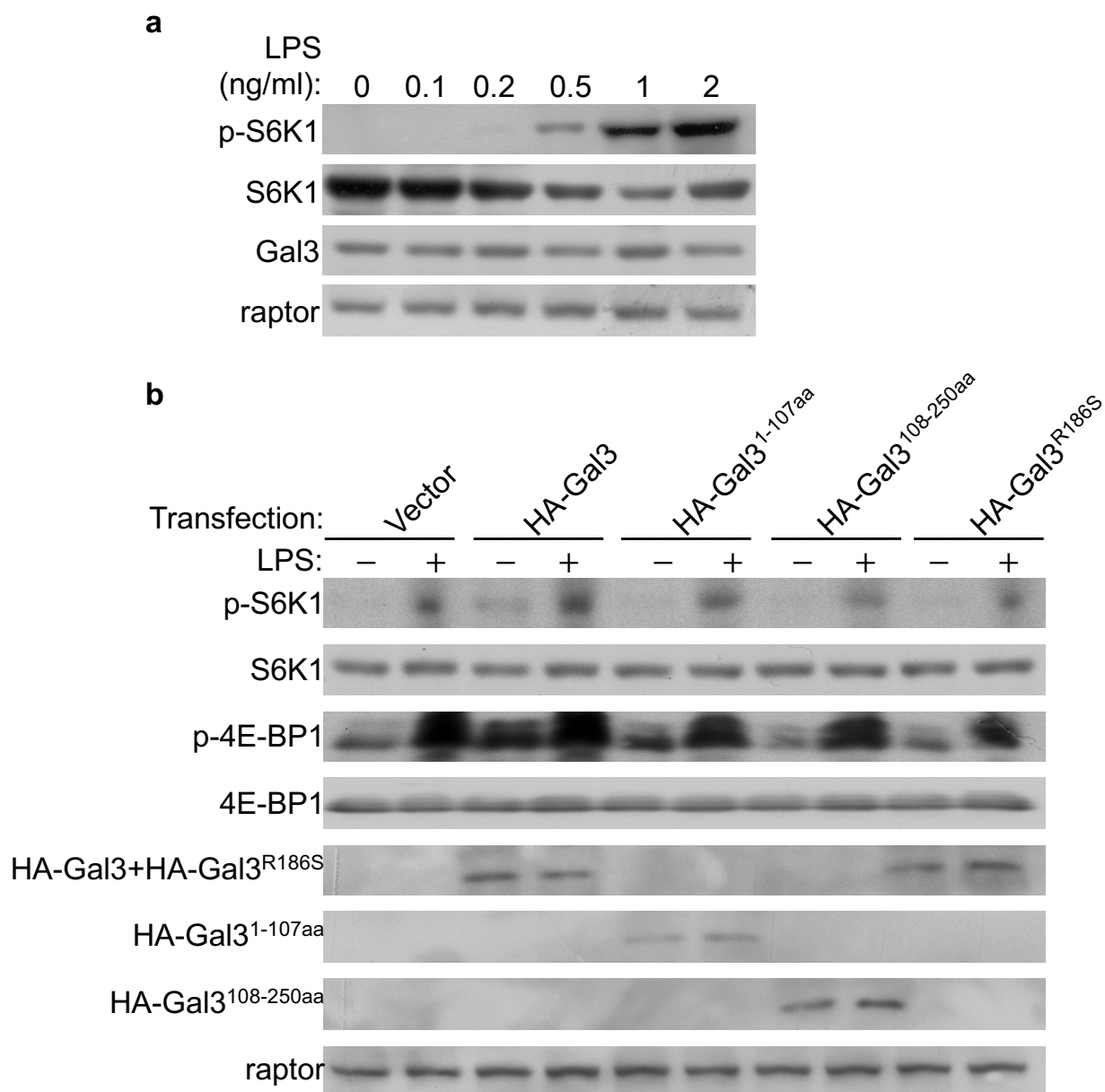


Supplementary Fig. 1



Supplementary Fig. 1. Galectin-3 facilitates the interaction of Rag GTPases and Regulator to stimulate the mTORC1 signaling. **a** Quantitative analysis of the immunoblots in Fig. 2a. Each bar represents the mean \pm SD for biological triplicate experiments. P values were calculated by two-tailed unpaired Student's t test (*** $P < 0.001$). **b** Quantitative analysis of the ratio of p-S6K1/S6K1 and p-4E-BP1/4E-BP1 in Fig. 2d. Error bars represent mean \pm SD for biological triplicate experiments. P values were calculated by two-tailed unpaired Student's t test (** $P < 0.01$, *** $P < 0.001$).

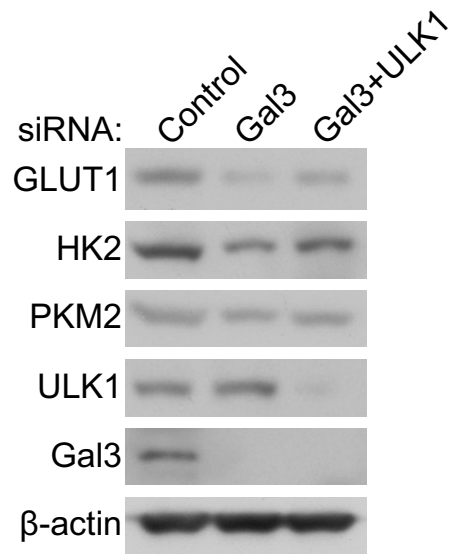
Supplementary Fig. 2



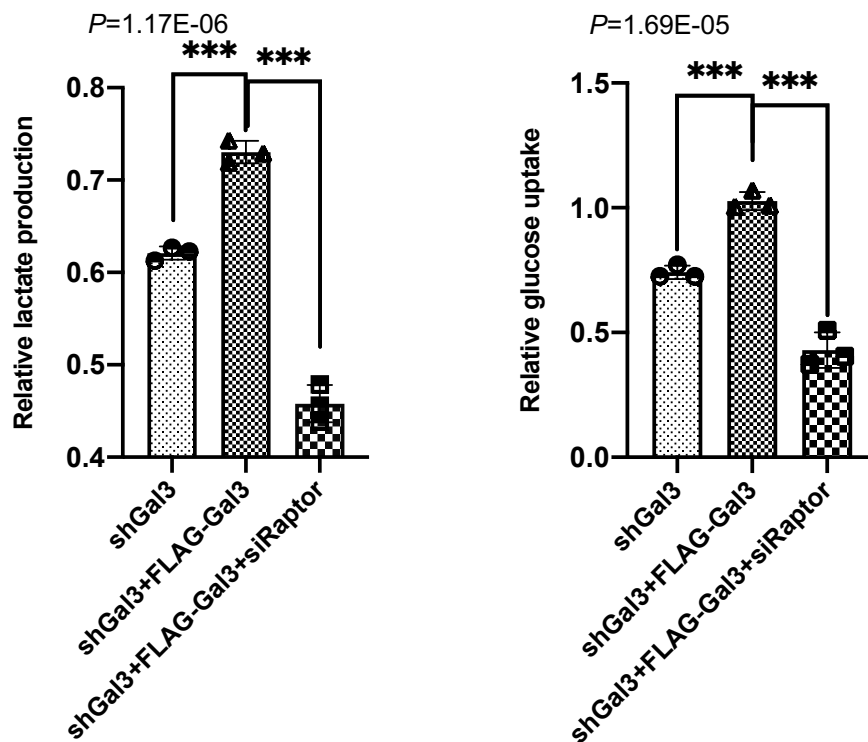
Supplementary Fig. 2. Galectin-3 senses LPS to activate mTORC1. **a** HEK-293T were treated with different concentrations of LPS for western blotting analysis of the expression or phosphorylation of the indicated proteins. Each experiment was repeated three times with similar results. **b** HEK-293T cells were transfected with HA-Gal3, HA-Gal3^{1-107aa} (N-terminal domain), HA-Gal3^{108-250aa} (C-terminal carbohydrate recognition domain), or HA-Gal3^{R186S}, starved of amino acids and glucose for 1 h, and stimulated with LPS (1 µg/ml) for 5 h for western blotting analysis of the expression or phosphorylation of the indicated proteins. Each experiment was repeated three times with similar results.

Supplementary Fig. 3

a

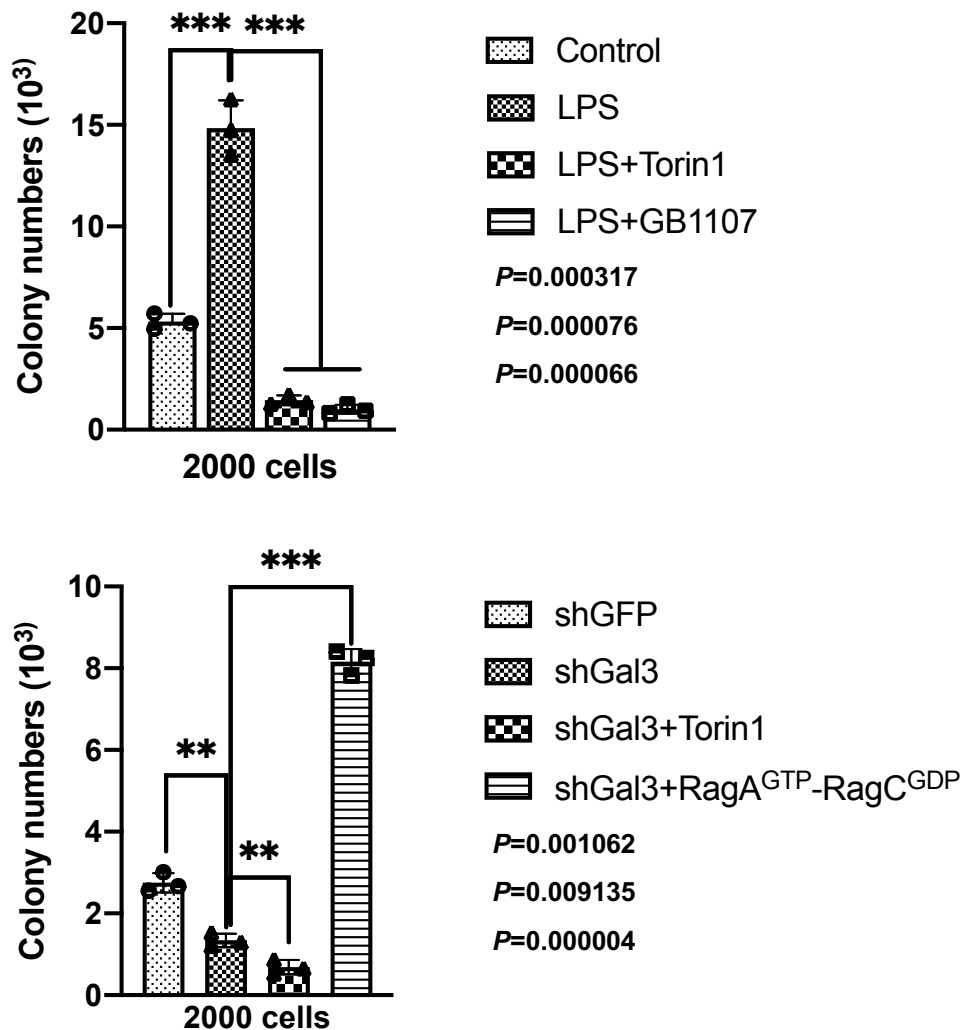


b



Supplementary Fig. 3. Galectin-3 promotes glycolysis through activating the mTORC1 signaling. **a** HEK-293T cells were treated with siCon, siGal3 or siGal3+siULK1 for western blotting analysis of the indicated proteins. Each experiment was repeated three times with similar results. **b** HEK-293T cells deficient of galectin-3 were transfected with FLAG-Gal3 or FLAG-Gal3+siRaptor for the measurement of glucose uptake and lactate production. Error bars represent mean \pm SD for biological triplicate experiments. *P* values were calculated by one-way ANOVA (***) $P < 0.001$.

Supplementary Fig. 4



Supplementary Fig. 4. Galectin-3 is implicated in hepatocarcinogenesis. HepG2 cells were treated with LPS, LPS+Torin 1, or LPS+GB1107, or infected with lentiviruses carrying shGFP or shGal3 and transfected with FLAG-RagA^{GTP}/RagC^{GDP} in the presence or absence of Torin 1 and cultured for 10 days before staining with crystal violet for colony formation assays. The number of colony was counted. Error bars represent mean \pm SD for biological triplicate experiments. *P* values were calculated by two-tailed unpaired Student's *t* test (***P* < 0.01, ****P* < 0.001).