

Nuclear microRNA-mediated transcriptional control determines adult microglial homeostasis and brain function

筆頭著者：Zhu Li（雲南大学）
miR137関連の文献 × 2
ASDモデルマウスに関する総説

Understanding autism spectrum disorders with animal models: applications, insights, and perspectives

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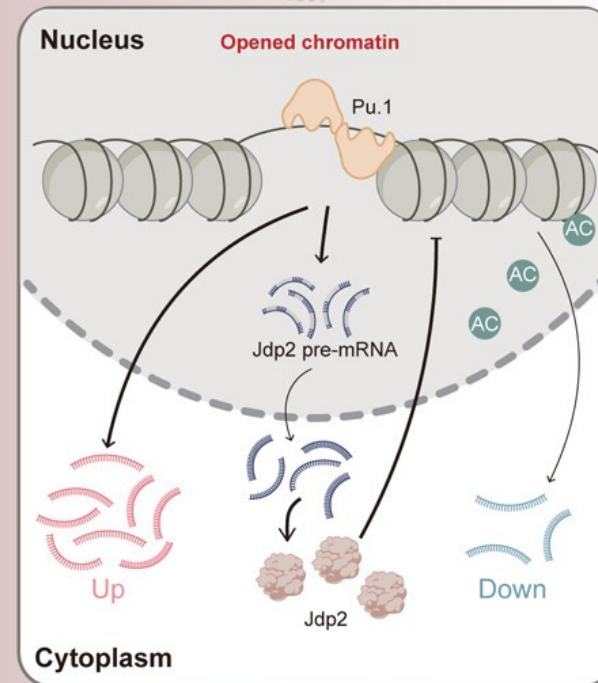
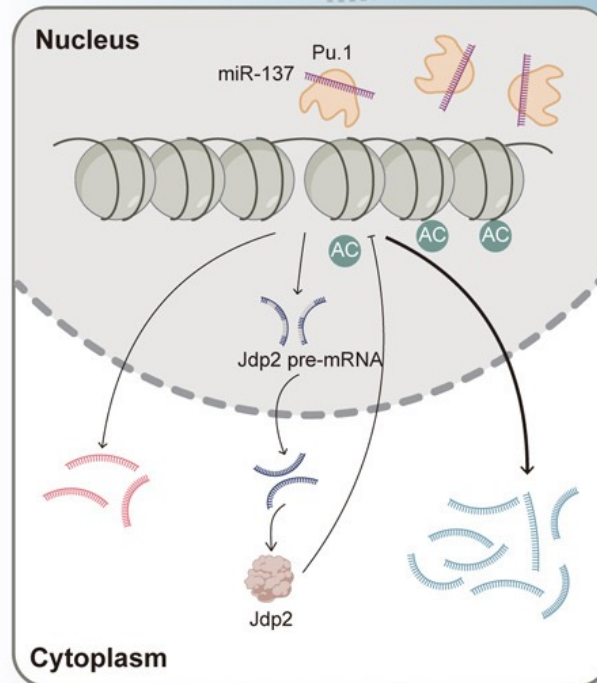
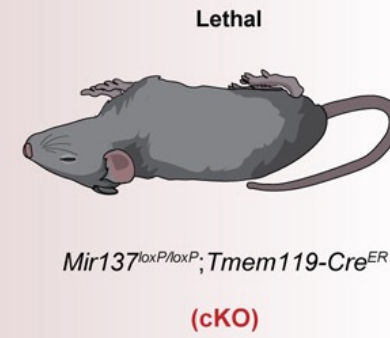
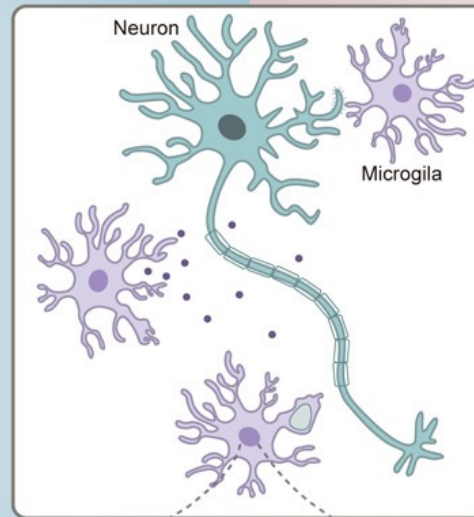
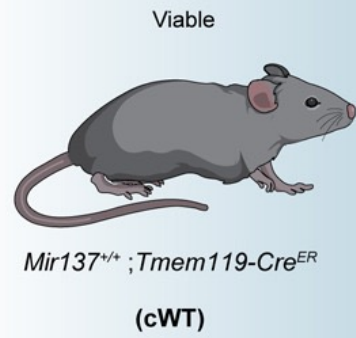
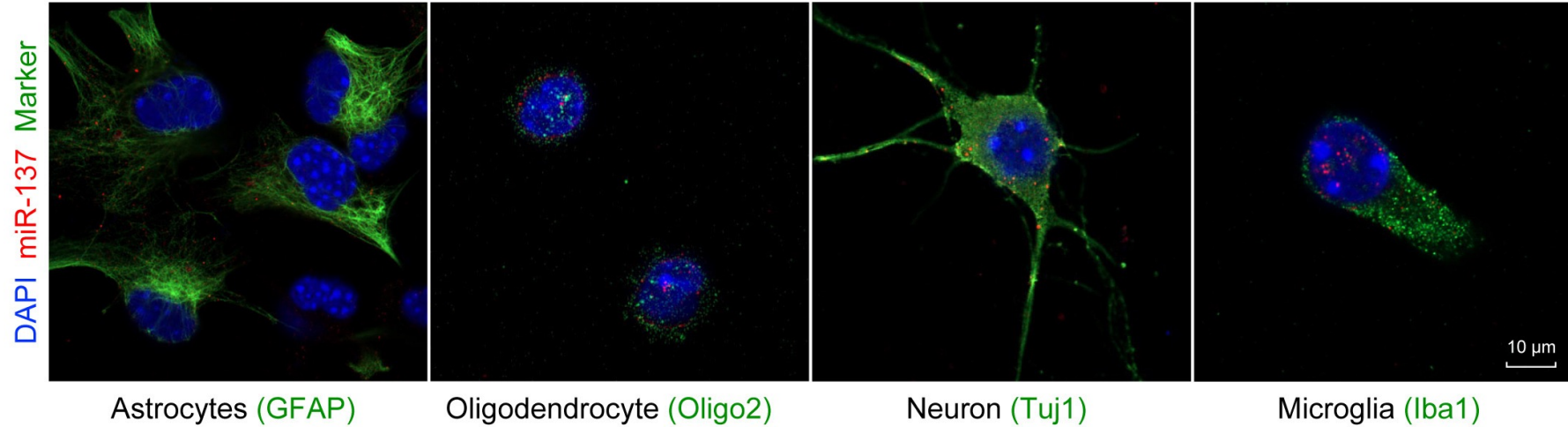


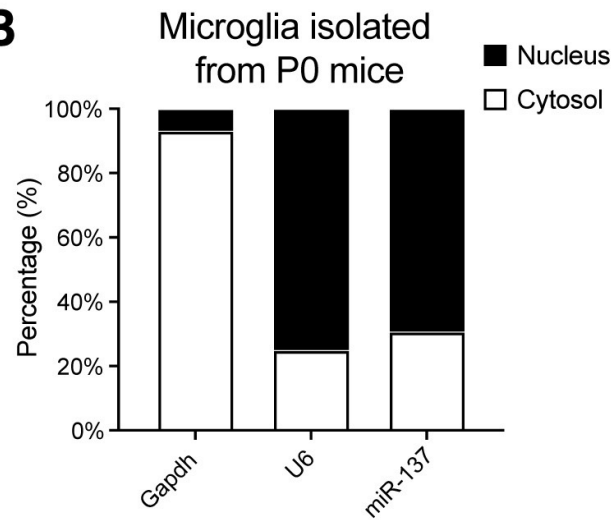
Figure 1

miR-137はミクログリアで核内に多く存在する

A



B



C

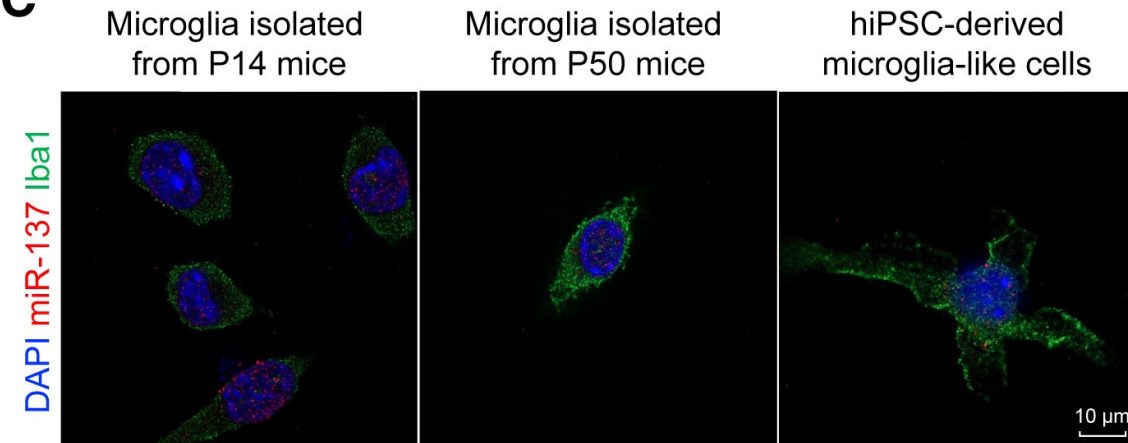


Figure 1

miR-137 cKOによりマウスの生存率が低下する

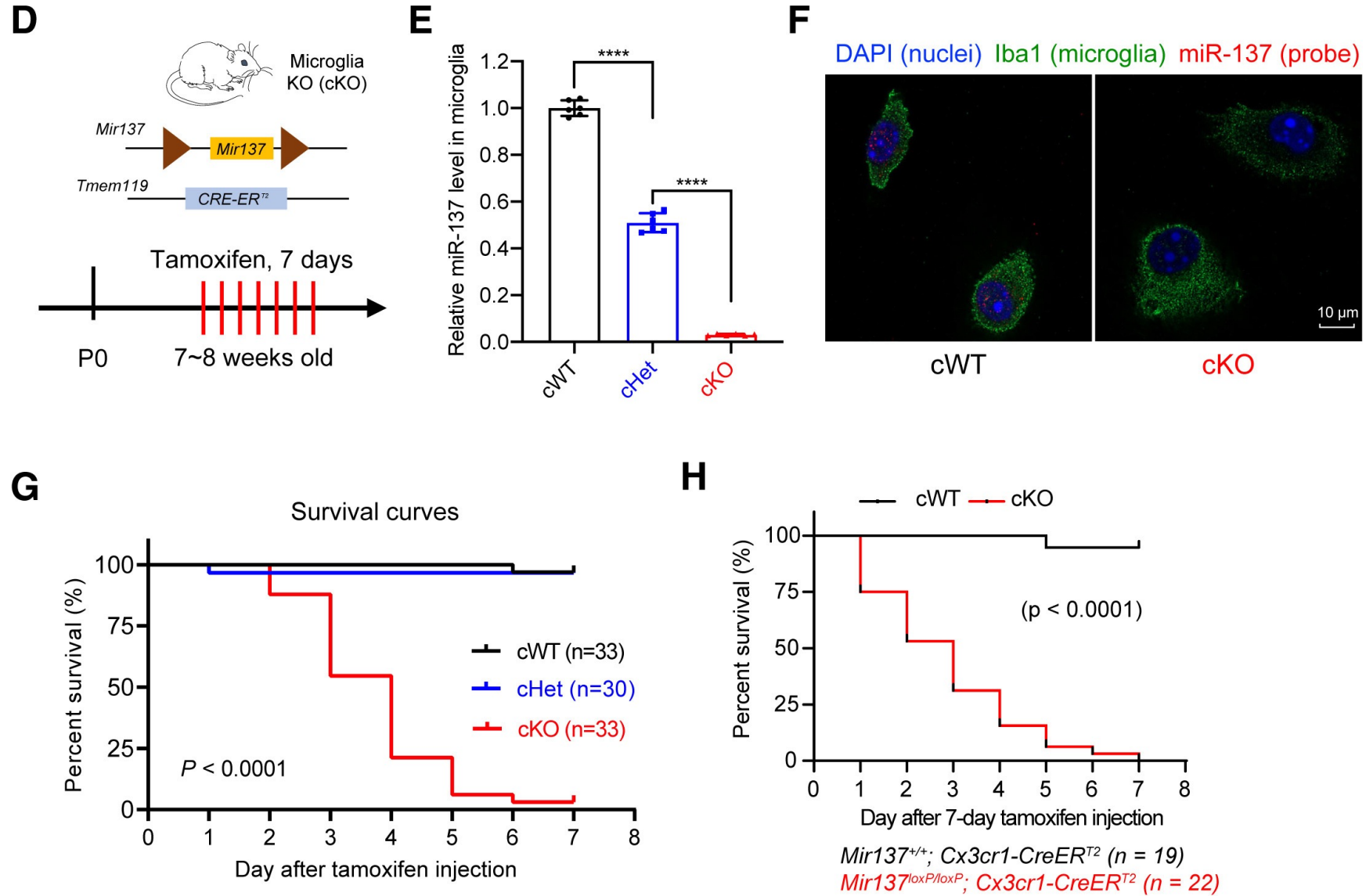
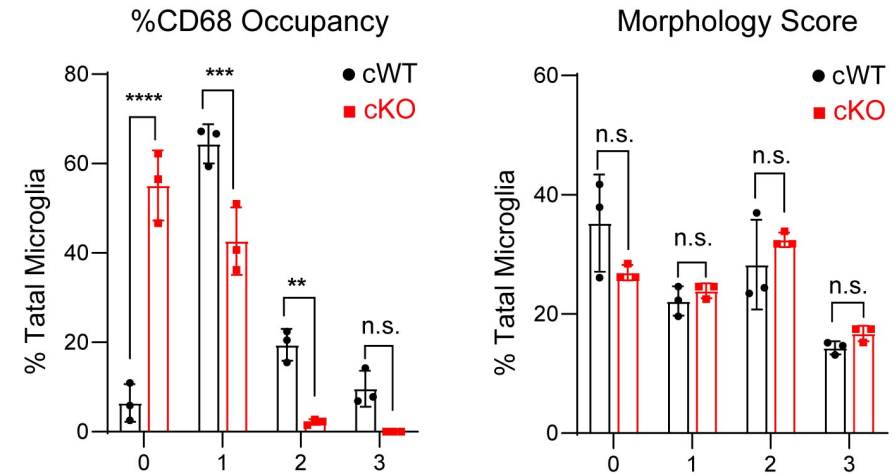
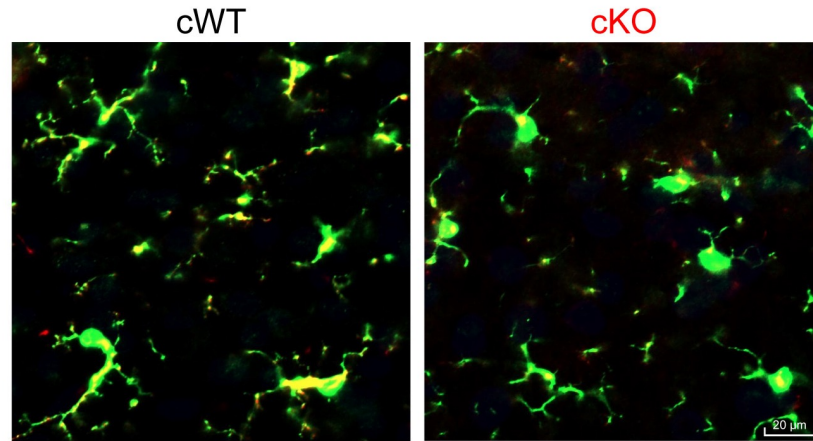


Figure 2

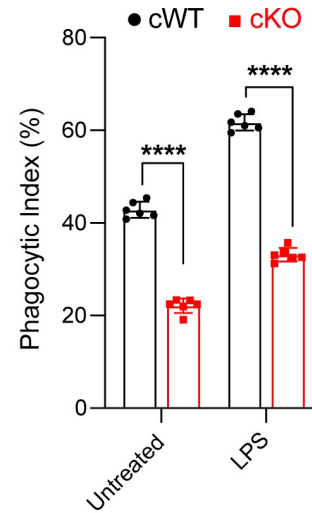
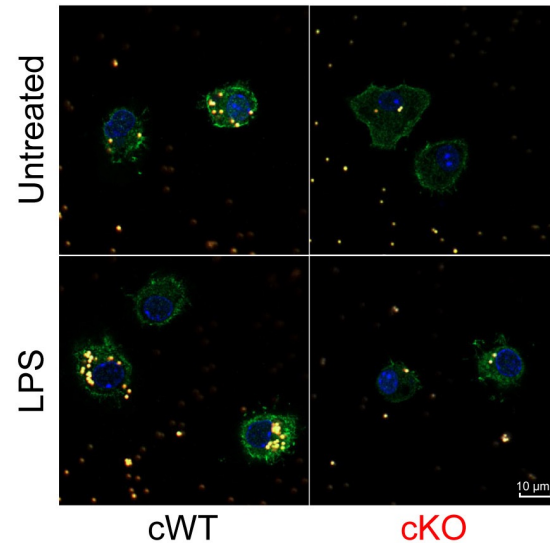
miR-137 cKOによりミクログリアの貪食能が低下する

A



B

Iba1 (microglia) DAPI (nuclei)
Fluorescent latex beads



C

Iba1 (microglia) DAPI (nuclei)
Fluorescent apoptotic neuron

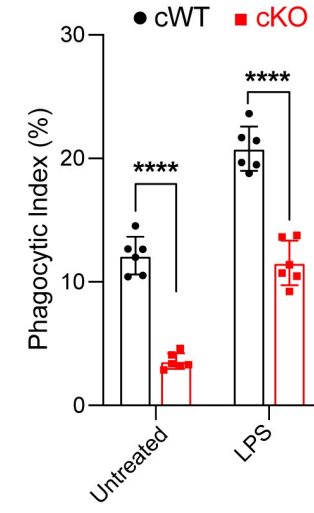
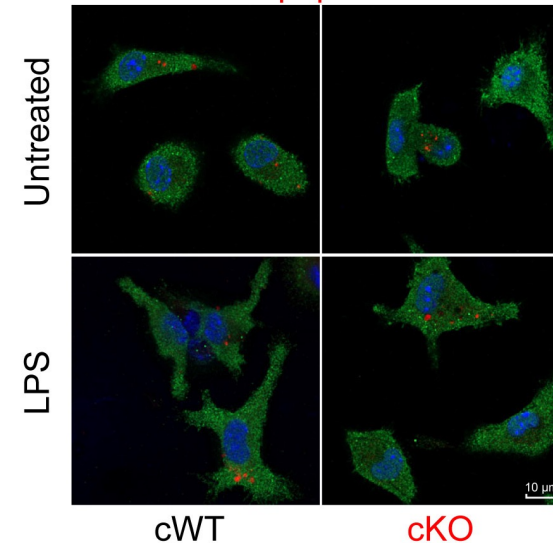
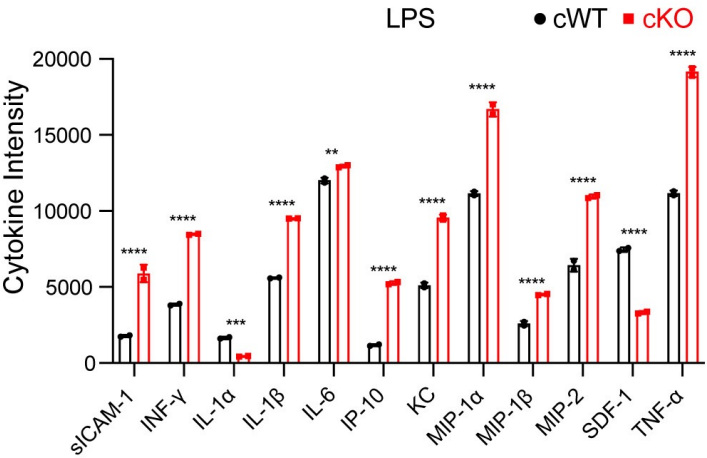
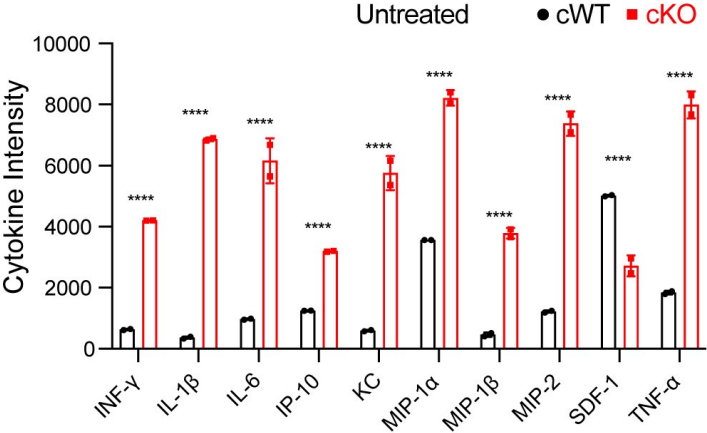


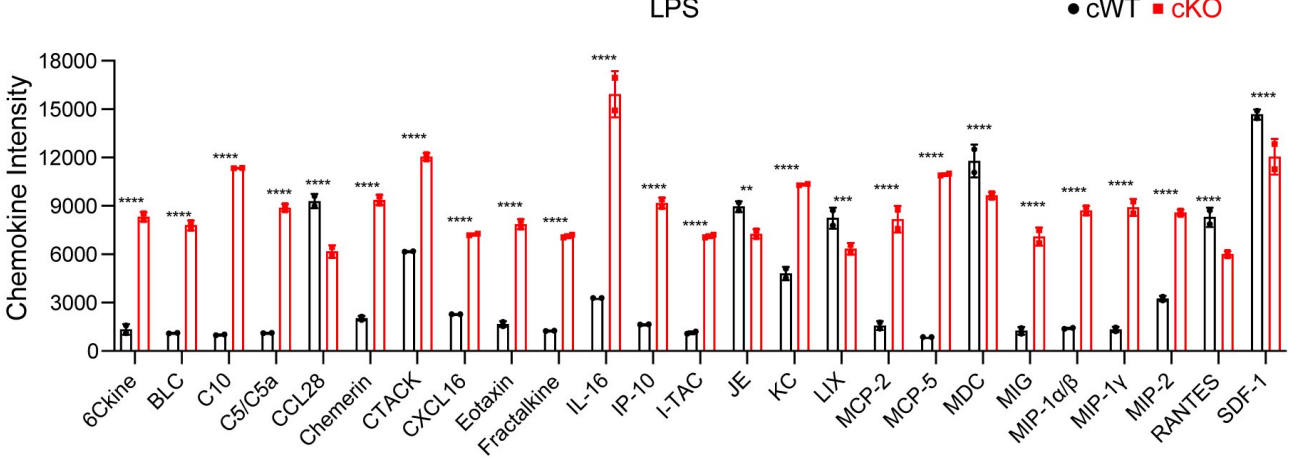
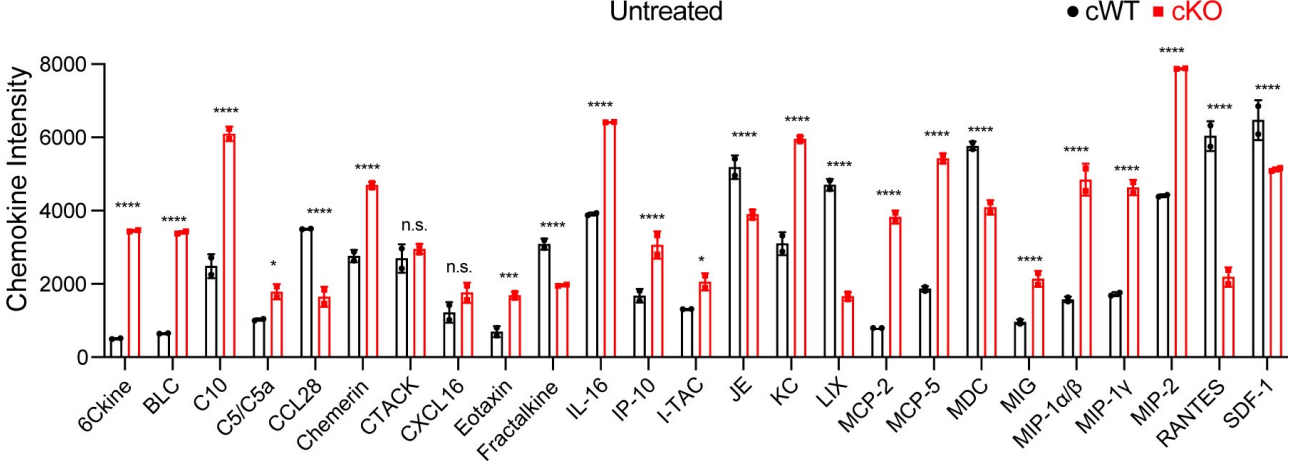
Figure 2 miR-137 cKOにより炎症に関する因子が増加する

D



Significantly changed cytokines

E



Significantly changed chemokines

Figure 3

miR-137 cKOにより神経細胞の傷害が促進される

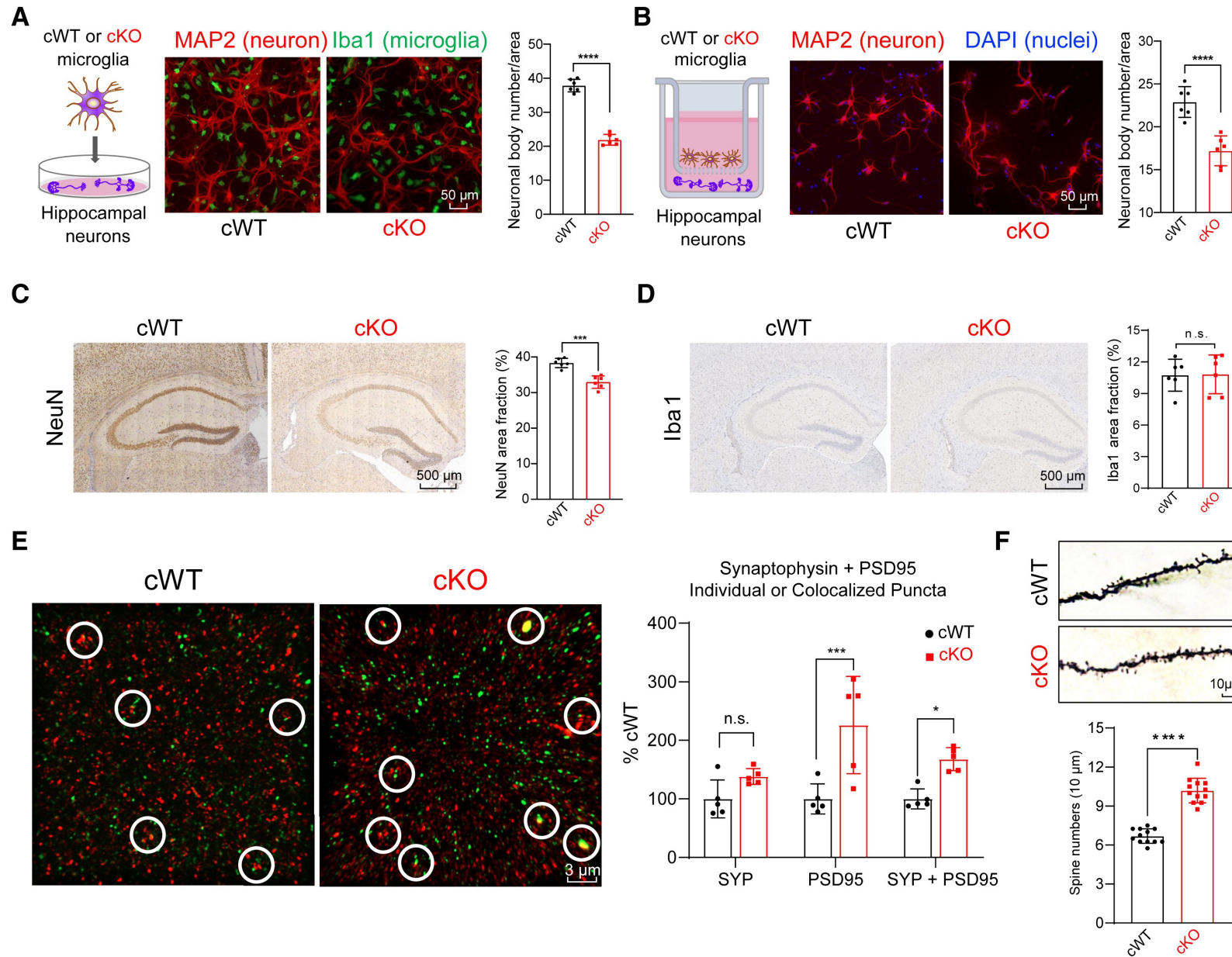
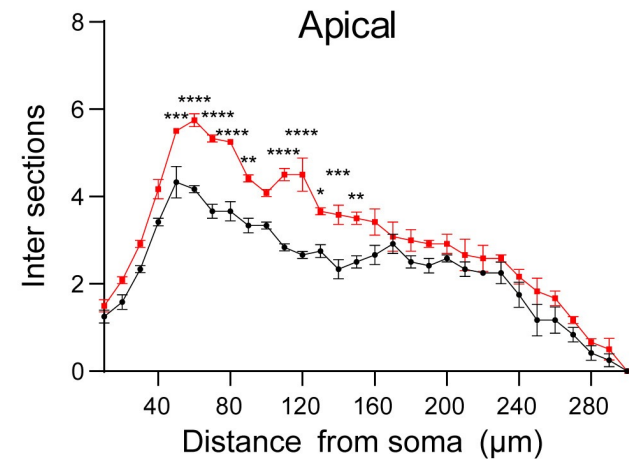
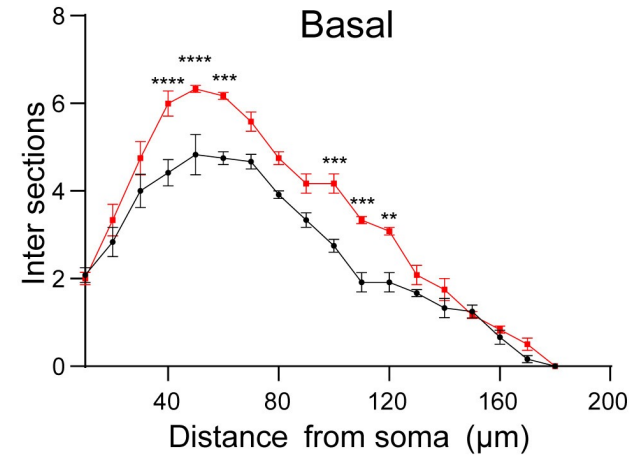
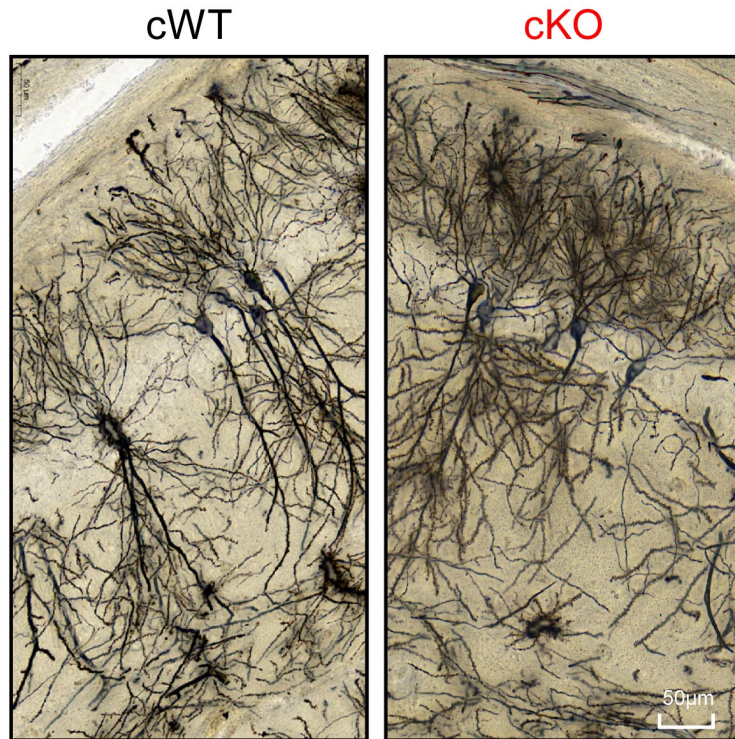


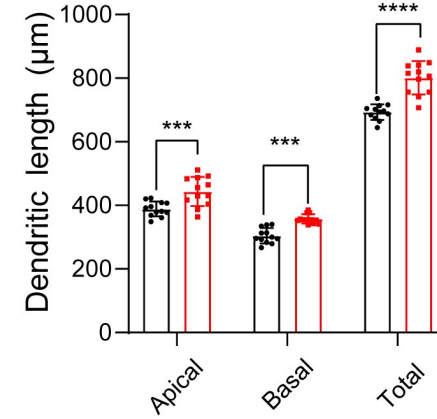
Figure 3

miR-137 cKOにより神経細胞の形態が変化する

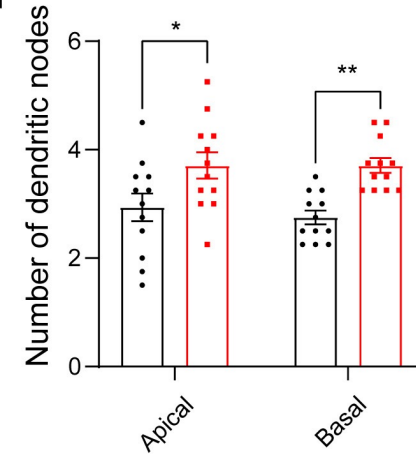
G



H



I



scRNA-seqの結果、サイトカイン・ケモカイン↑

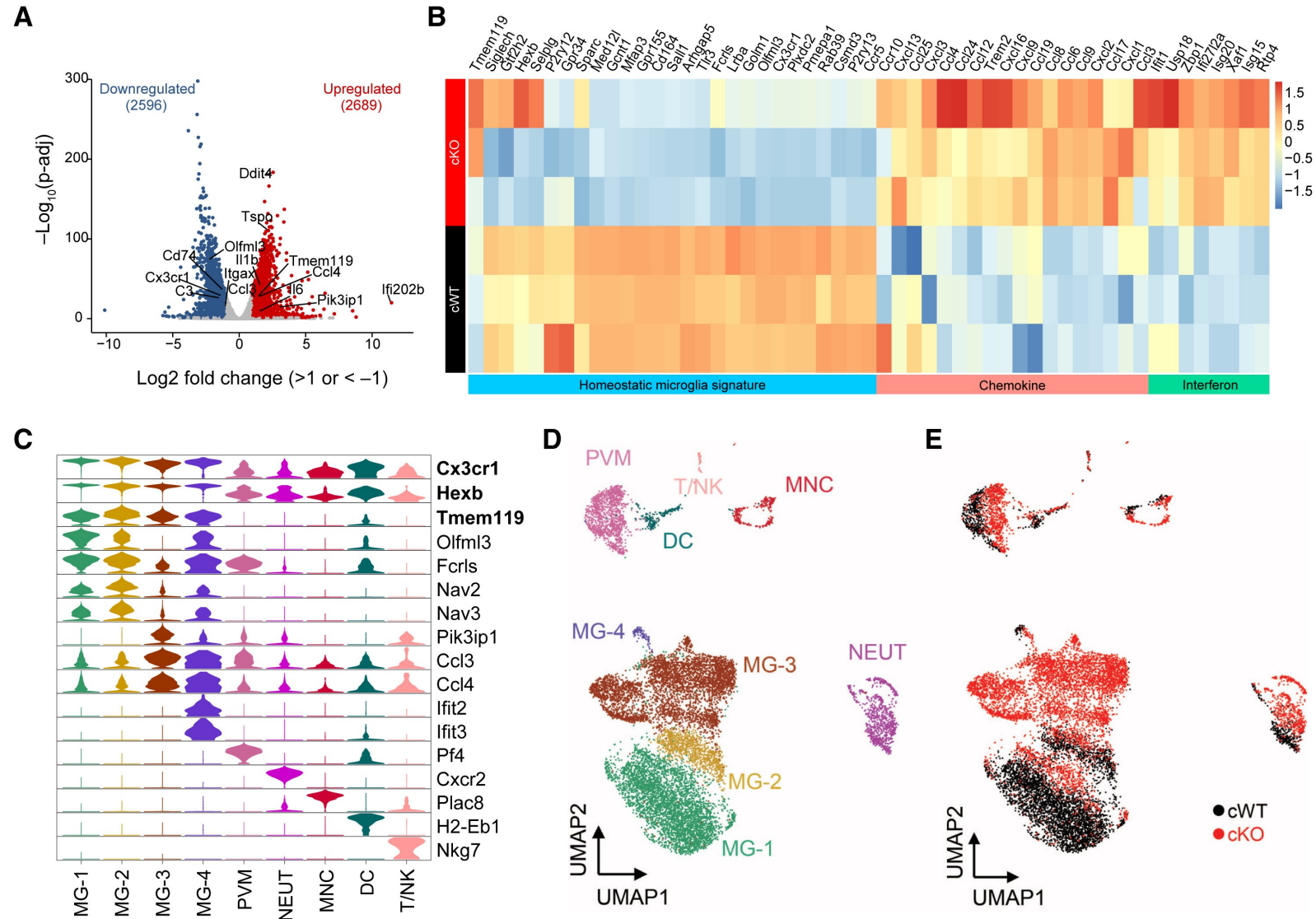


Figure 4

発現が抑制された遺伝子は神経系の発達に関わるもの

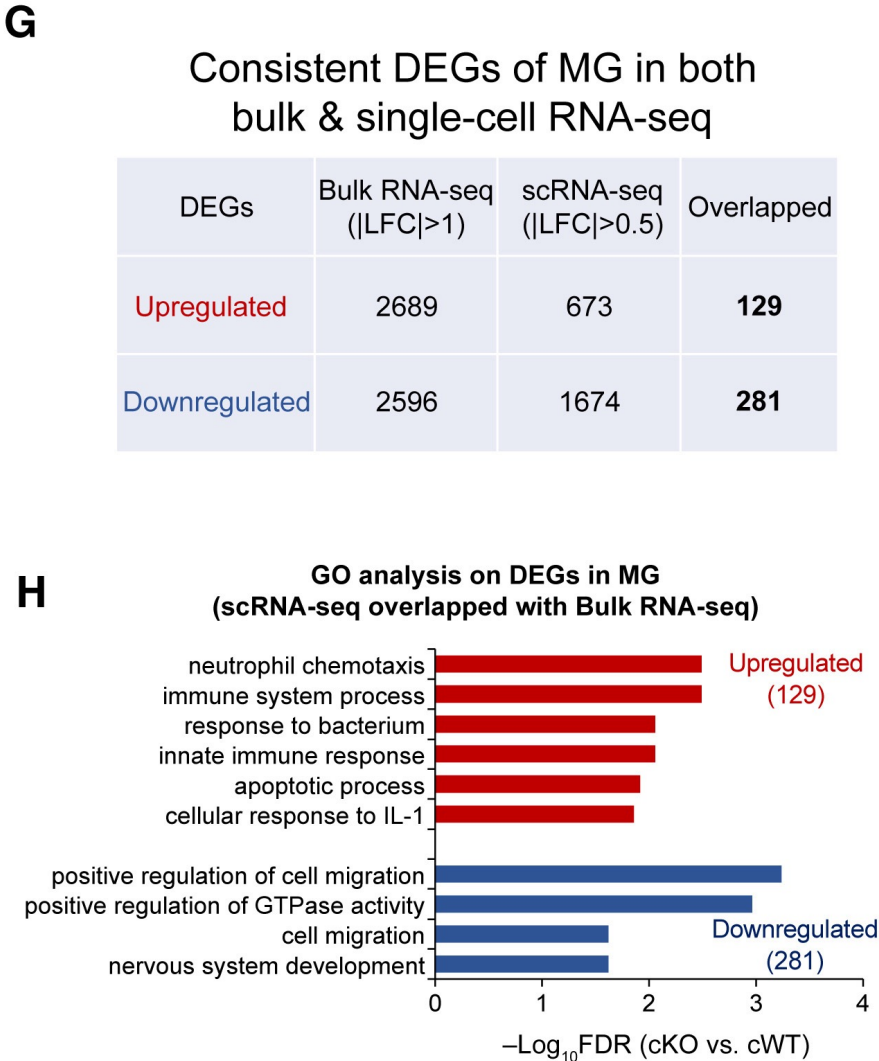
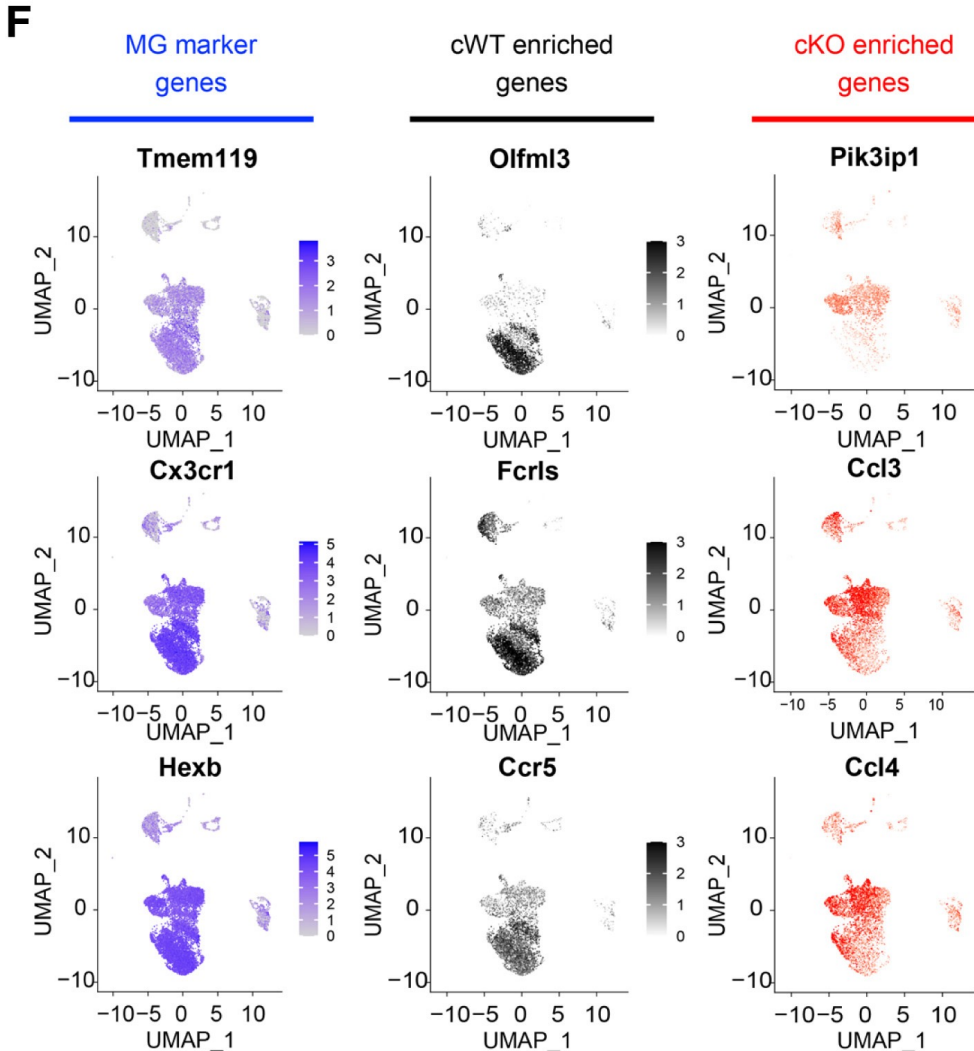


Figure 5

miR-137はJdp2発現抑制を担う

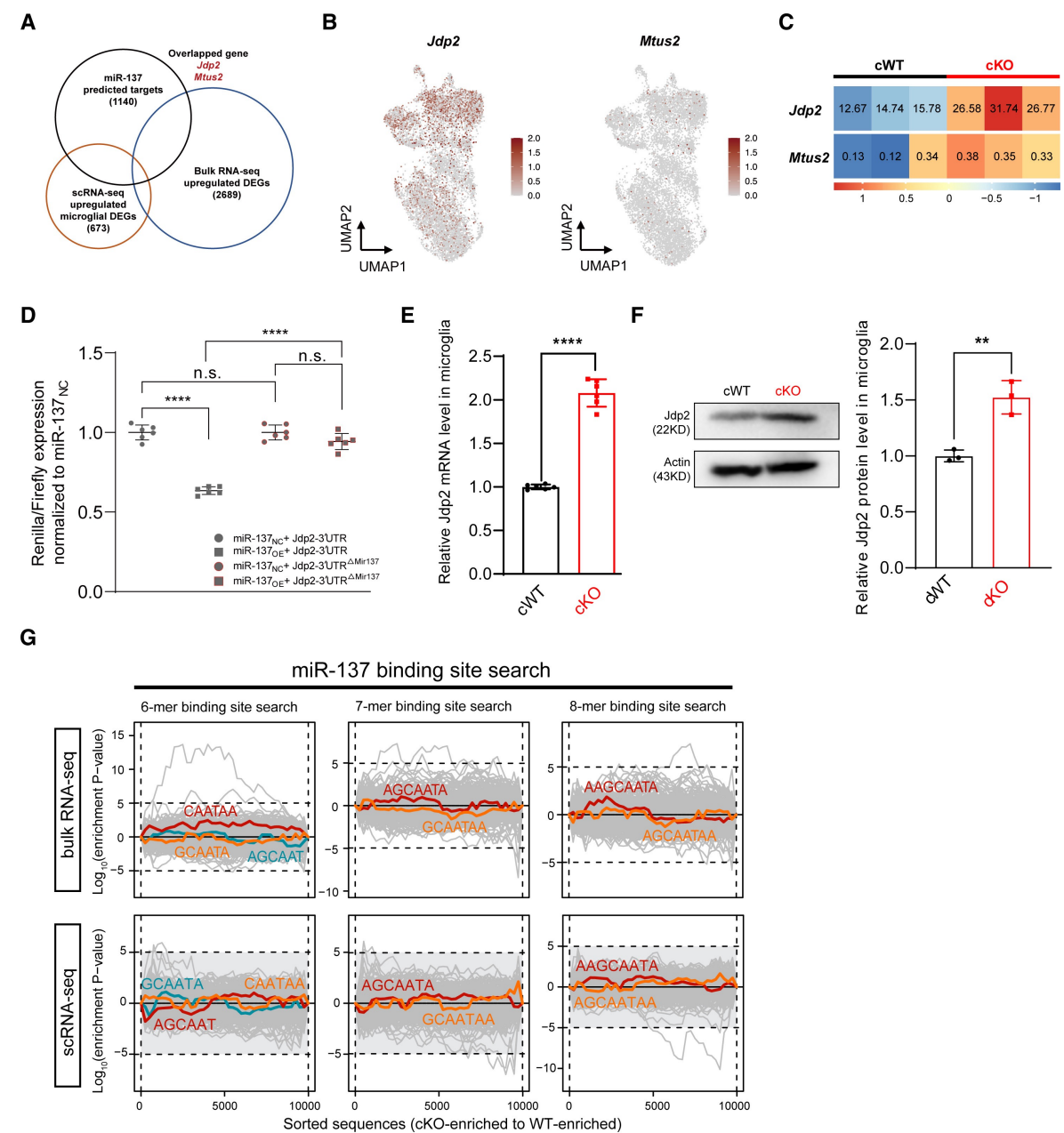


Figure 6

miR-137はクロマチンアクセシビリティを調節する

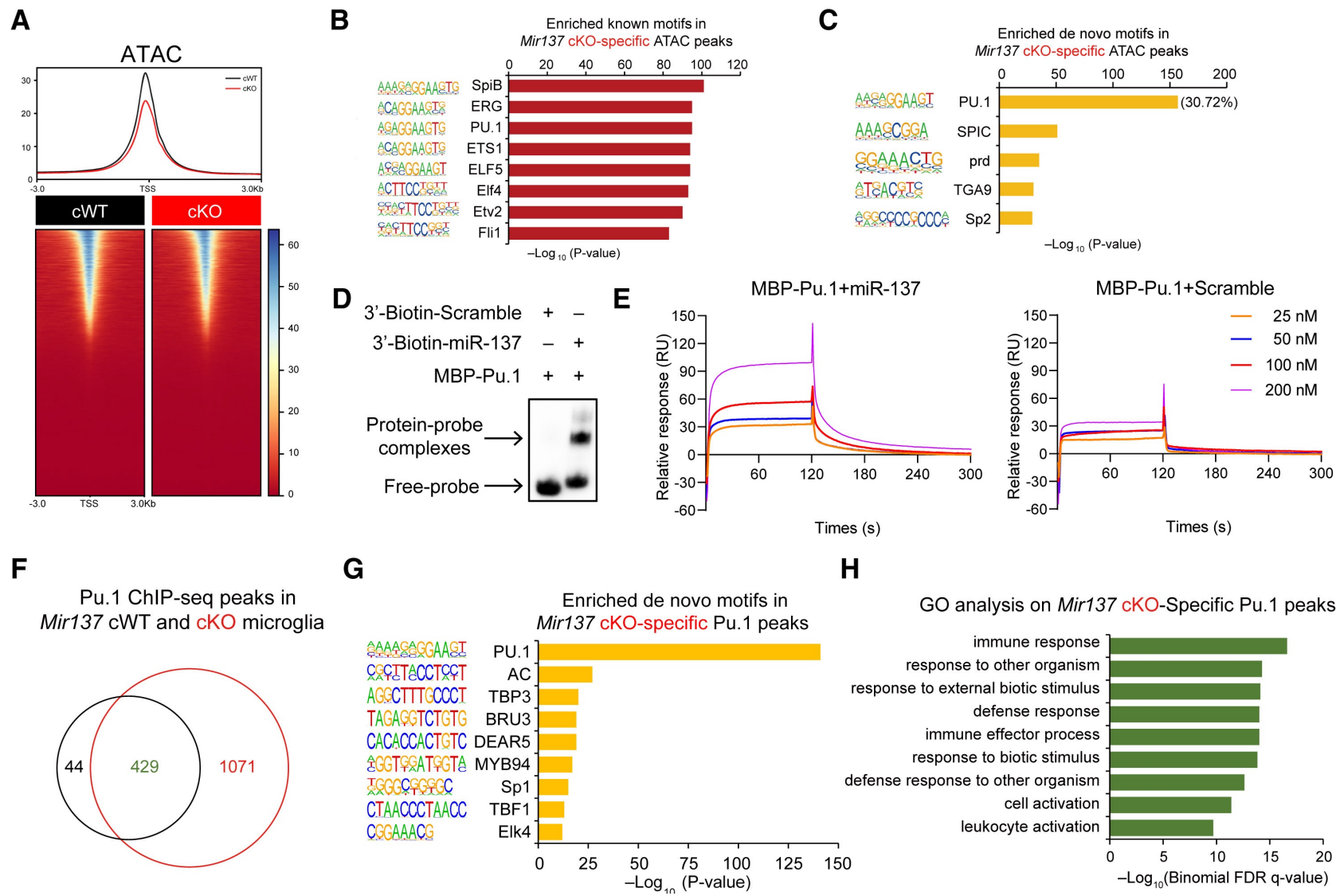


Figure 6

miR-137は転写因子Pu1を活性化する

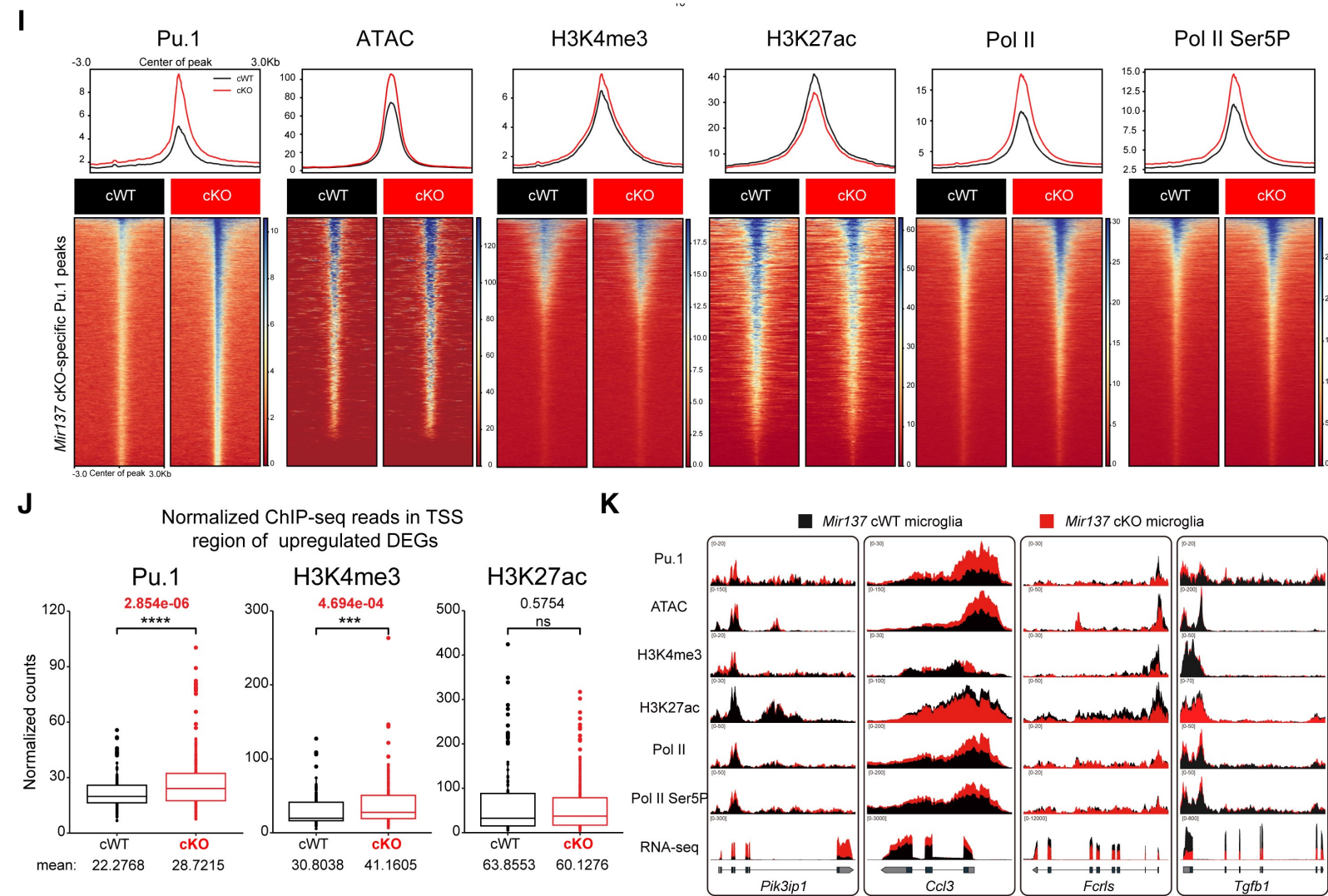


Figure 7

Jdp2はPu1により転写調節される

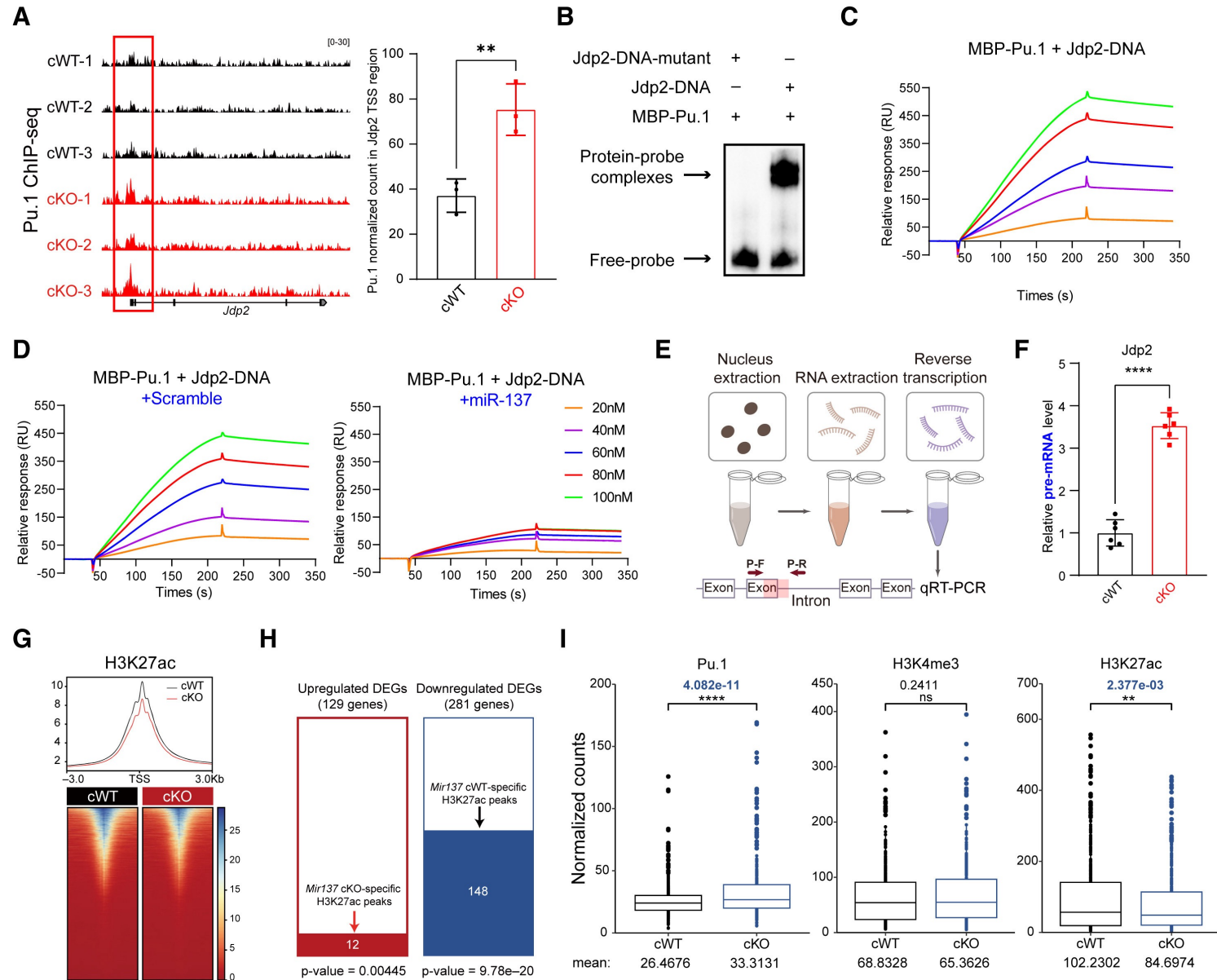
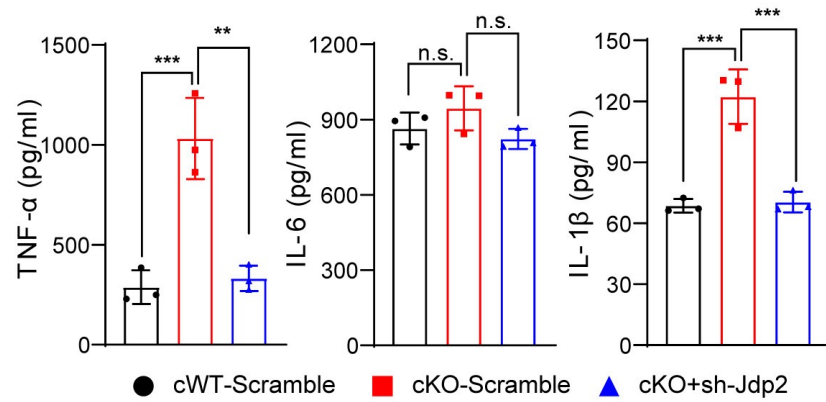


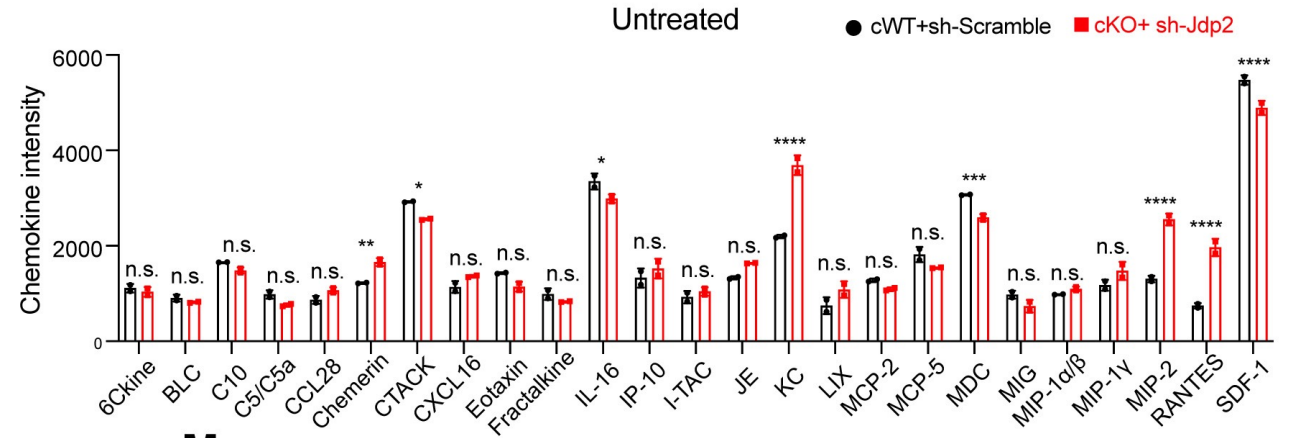
Figure 7

Jdp2のノックダウンにより、貪食能が改善する

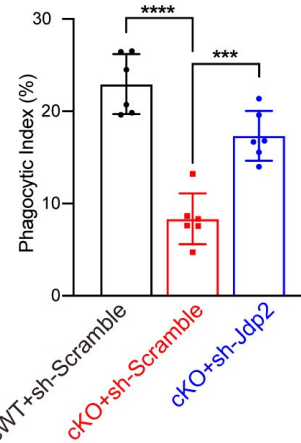
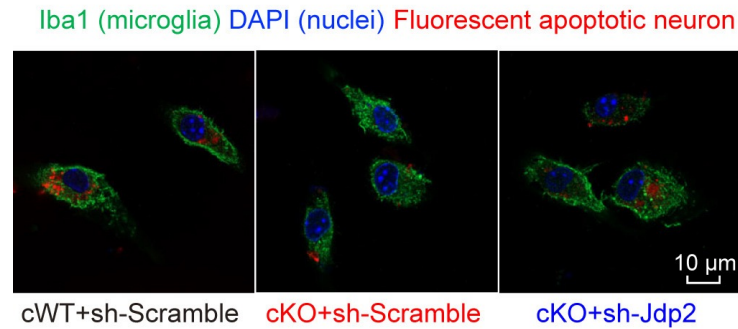
J



K



L



M

