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Pioglitazone inhibits EGFR/MDM2 signaling-mediated PPAR γ degradation

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Abstract

Aberrant activation of the epidermal growth factor receptor (EGFR) signaling is involved in many cancer events. Although peroxisome proliferator-activated receptor γ (PPAR γ) has been implicated in inhibition of inflammation and cancer, EGFR/MDM2 signaling induces PPAR γ phosphorylation and degradation. Here we found that cancer cells in response to EGF reduced PPAR γ protein levels by inducing its phosphorylation, ubiquitination and degradation, but PPAR γ agonist pioglitazone reversed this event. More importantly, pioglitazone increased cancer cell sensitivity to chemotherapy drugs. Therefore, our study revealed a novel mechanism that

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