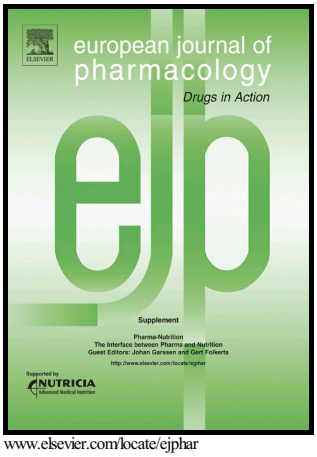

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Pioglitazone inhibits EGFR/MDM2 signaling-mediated PPARγ degradation

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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 (PPARγ) has been implicated in inhibition of inflammation and cancer, EGFR/MDM2 signaling induces PPARγ phosphorylation and degradation. Here we found that cancer cells in response to EGF reduced PPARγ protein levels by inducing its phosphorylation, ubiquitination and degradation, but PPARγ 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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