

Antioxidant enzyme activities and intracellular reactive oxygen intermediate (ROI) levels of flavonol quercetin in the presence of taurine on B16F10 murine melanoma cells.

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Flavonoids are phenolic compounds widely distributed in wide variety of edible plants including leafy vegetables, fruits, beverages. Quercetin is one of bioflavonoid compounds and has anti-tumor effect by suppressing tumor growth in vitro and in vivo, including multiple biological effects by antioxidant and effective anti-inflammatory agent. The present study investigated whether quercetin can enhance antioxidant enzyme activities (glutathione peroxidase: GPX, superoxide dismutase : SOD, catalase: CAT) and intracellular reactive oxygen intermediate (ROI) levels in the presence of taurine on B16F10 murine melanoma cells. From this result, the antioxidant enzyme activities of quercetin in the presence of taurine was enhanced. In addition, the same treatments decreased intracellular reactive oxygen intermediate levels on B16F10 murine melanoma cells. Taken together, these results demonstrate that the antioxidant effect of quercetin can enhance in the presence of taurine and it might play an important role in anti-tumor effect.