Genistin (Genistine), an isoflavone belonging to the phytoestrogen family, is a potent anti-adipogenic and anti-lipogenic agent. Genistin attenuates cellular growth and promotes apoptotic cell death breast cancer cells through modulation of ERalpha signaling pathway\[1\][2][3].

Genistin causes negative regulation of ERα. Genistin also effectively down-modulates ER nuclear translocation as well DNA binding activity in breast cancer cells. Moreover, GS effectively induced apoptosis and suppressed levels of oncogenic
markers in MCF-7 cells\(^3\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**PROTOCOL**

**Cell Assay\(^1\)**

M14 human melanoma cells are used and grown in RPMI containing 10% fetal calf serum, 100 U/mL penicillin, 100 μg/mL streptomycin, and 25 μg/mL fungizone. After 24 h of incubation at 37°C under a humidified 5% carbon dioxide to allow cell attachment, the cells are treated with different concentrations (12, 25, 50, and 100 μM) of Genistin and daidzin, and incubated for 72 h under the same conditions\(^1\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**Animal Administration\(^2\)**

Sprague-Dawley rats (male, 250 to 300 g) are used to establish the I/R injury animal model and used in this experiment. Rats are randomly apportioned in equal animals (n=10) to five experimental groups: (1) sham group: rats are subjected to the entire surgical procedure but without the induction of I/R; (2) model group: I/R injury animal model is constructed by left anterior descending coronary artery (LAD) ligation for 30 min, and then the LAD is allowed 1 h reperfusion; and (3) three Genistin-treated groups: different doses (20, 40, and 60 mg/kg body weight, resp.) of Genistin dissolved in 0.5% sodium carboxyl methyl cellulose (CMC-Na) solution are given intragastrically for 5 days before operation\(^2\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

