

عنوان مقاله:

Titanium dioxide nanoparticles can induce apoptosis in cancer cells

محل انتشار:

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خلاصه مقاله:

Nanotechnology involves the creation and manipulation of materials at nanoscale to create products that exhibit novel properties. Nano-TiO₂, as one of the top five nanoparticles in annual production, is widely applied in industries ranging from healthcare to drug delivery. The properties of nanoTiO₂ have raised concerns regarding toxicity. Annexin V-FITC/PI double staining and a flow cytometer were used to detect apoptosis. A significant increase in apoptosis was observed at concentrations of TiO₂-NP of ۵۰-۱۰۰ μg/ml, varying between ۲۵-۴۰% apoptosis by ۲۴ h. To further investigate the aptotic and toxic effects of these substances, it is recommended that this study be performed in the in vivo phase.

کلمات کلیدی:

Nanoparticle, TiO₂-NP, Hepatocellular, Apoptosis

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