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Phenolic profile of jujube fruit subjected to gut microbiota fermentation and its antioxidant potential against ethyl carbamate-induced oxidative damage

Key words: Jujube; Gut microbiota fermentation; Polyphenols; Ethyl carbamate; Antioxidant activity

Research Summary

Jujube fruit has rich bioactive components after gut microbiota fermentation, and shows strong antioxidant capacity. Fermented jujube fruitfruits can inhibit the cytotoxicity and DNA damage of Caco-2 cells caused by ethyl carbamate and reduce intracellular ROS generation, as well as restoring GSH and mitochondrial membrane potential.

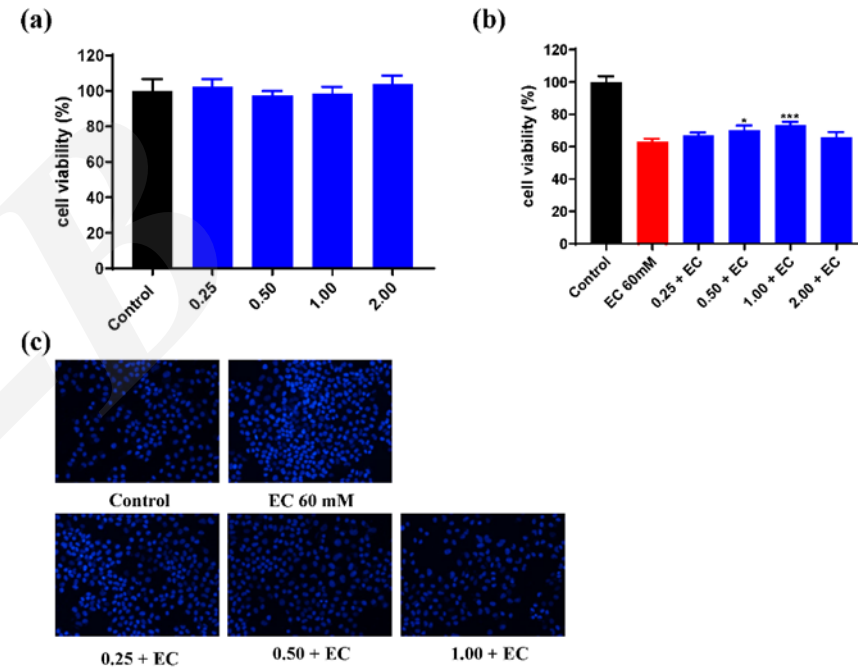
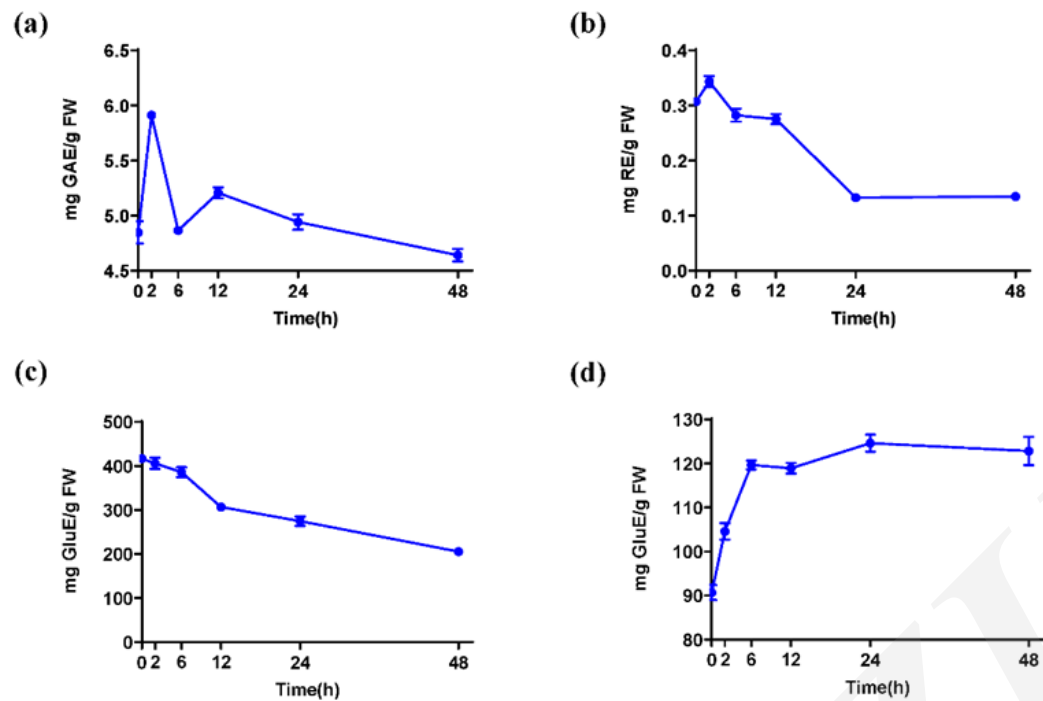
Content

- **Fermented jujube phenolics analyzed by HPLC**
- **Antioxidant activity(ABTS and FRAP)**
- **Cellular ROS and GSH**
- **Mitochondrial membrane potential**

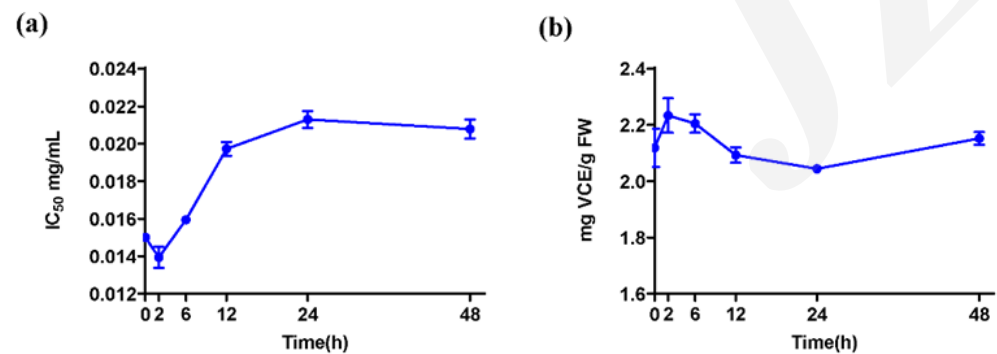


Jujube phenolics, flavonoids, total sugar and reducing sugar

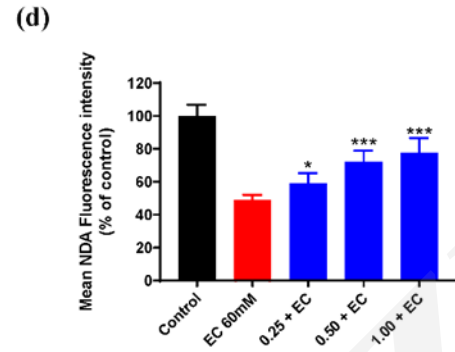
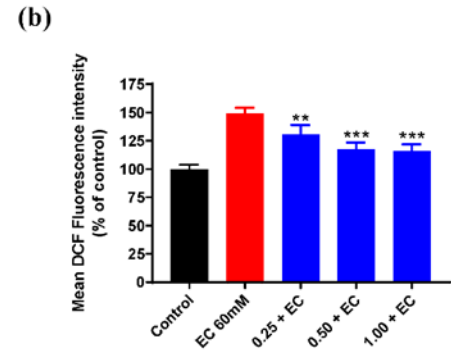
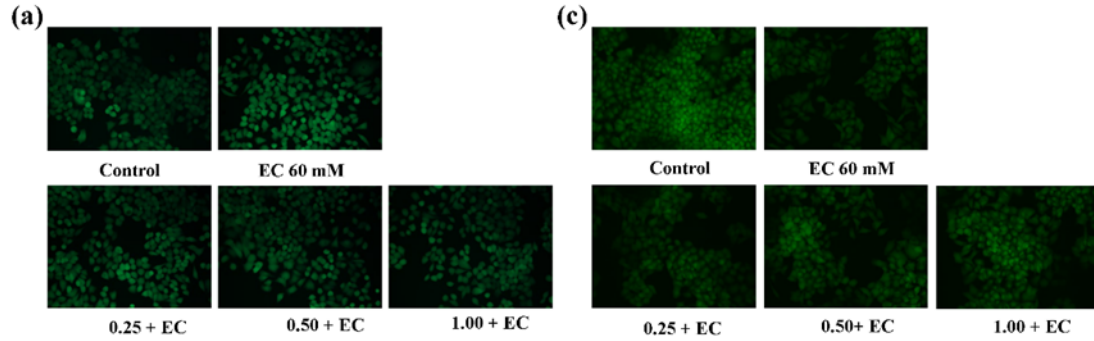
Cell viability



Antioxidant activities



Cellular ROS and GSH



Mitochondrial membrane potential

