

Abstract:

The protective effect of whey protein hydrolysates (WPHs) against H₂O₂-induced oxidative damage on rat pheochromocytoma line 12 (PC12) cells was studied. Whey protein was hydrolyzed by pepsin and trypsin and purified by macrospore absorption resins. PC12 cells were pretreated with WPHs (from 369 to 1,980 Da) at different concentrations for 2 h, then washed and incubated with 100 μM H₂O₂ in the presence of WPHs for another 24 h. With 100–400 μg WPH/ml the viable cells increased by 20–30 % when incubated with H₂O₂ suggesting that they may play a role as antioxidant in foods.