Phenolic Content and Antioxidant and Antimutagenic Activities in Tomato Peel, Seeds, and Byproducts

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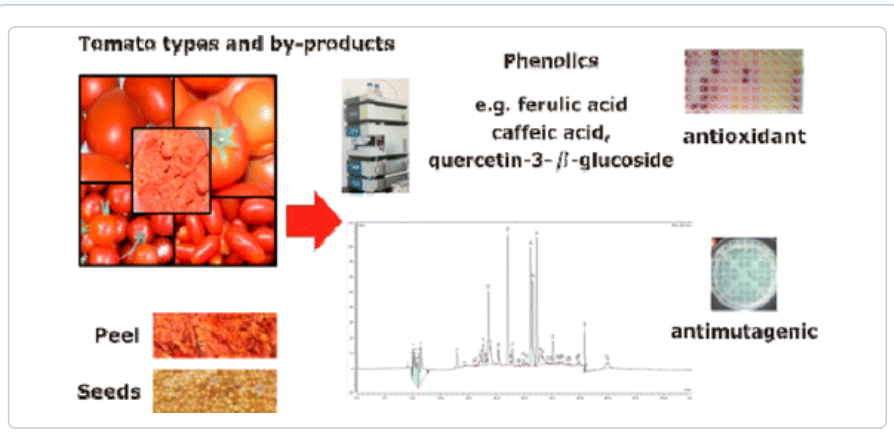
Abstract



The phenolic content and antioxidant and antimutagenic activities from the peel and seeds of different tomato types (grape, cherry, bola and saladette type), and simulated tomato industrial byproducts, were studied. Methanolic extracts were used to quantify total phenolic content, groups of phenolic compounds, antioxidant activities, and the profile of phenolic compounds (by HPLC-DAD). Antimutagenic activity was determined by *Salmonella typhimurium* assay. The total phenolic content and antioxidant activity of tomato and tomato byproducts were comparable or superior to those previously reported for whole fruit and tomato pomace. Phenolic compounds with important biological activities, such as caffeic acid, ferulic acid, chlorogenic acids, quercetin-3-β-*O*-glycoside, and quercetin, were quantified. Differences in all phenolic determinations due to tomato type and part of the fruit analyzed

History

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