

A cherry seed-derived spice, Mahleb, is recognized by anti-almond antibodies including almond-allergic patient IgE.

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Abstract:

There are a number of examples of immunologic cross-reactivity elicited by pollens, fruits, seeds, and nuts of closely related plant species. Such cross-reactivity is of particular concern for patients with food allergies. In this report, we investigated a spice (mahleb) that is prepared from the kernel of the St. Lucie cherry, *Prunus mahaleb*, for cross-reactivity with almond (*Prunus dulcis*), using enzyme-linked immunosorbent assay (ELISA) and Western blot. Almond and mahleb are members of the same genus. Cross-reactivity between the mahleb and almond was demonstrated by reaction of cherry and almond kernel protein extracts with antibodies raised against almond proteins. Almond-specific murine monoclonal IgG, rabbit polyclonal IgG, and almond-allergic serum IgE each exhibited cross-reactivity with cherry kernel protein. Because of the demonstrated cross-reactivity between almond and mahleb, these findings should be of special concern to almond-allergic patients and attending medical personnel.