Plant protein families and their relationships to food allergy

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The analysis of plant proteins has a long and distinguished history, with work dating back over 250 years. Much of the work has focused on seed proteins, which are important in animal nutrition and food processing. Early studies classified plant proteins into groups based on solubility ('Osborne fractions') or protein function. More recently, families have been defined based on structural and evolutionary relationships. One of the most widespread groups of plant proteins is the prolaminin superfamily, which comprises cereal seed storage proteins, a range of low-molecular-mass sulphur-rich proteins (many of which are located in seeds) and some cell wall glycoproteins. This superfamily includes several major types of plant allergen: non-specific lipid transfer proteins, cereal seed inhibitors of α-amylase and/or trypsin, and 2 S albumin storage proteins of dicotyledonous seeds.

Keywords: 2 S albumins, allergen, lipid transfer proteins, prolaminin superfamily, seed storage proteins
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While the number of food allergies cases continues to grow, few treatment options exist. Dr. Yang stressed, “Our study is the first to discover the probiotic strain’s mechanism of controlling food allergies without affecting regulatory T cells” and added, “since mast cells are the root cause of all allergic reactions, recombinant ESBP protein might be used therapeutic treatment of other allergic diseases as well as food allergy.” Institute for Basic Science. “Protein from bacteria alleviates food allergy symptoms.” ScienceDaily. ScienceDaily, 16 March 2016. Institute for Basic Science. (2016, March 16). Protein from bacteria alleviates food allergy symptoms. ScienceDaily. Plant-based protein like high protein vegetables legumes can also be great sources of this power nutrient. Meat and fish aren't the only sources of protein. Veggies, legumes, and other vegetarian foods can also load you up with this power nutrient. By Stephanie Eckelkamp. Jun 26, 2018. Brian Yarvin/Getty Images. There lots of good reasons to go vegetarian. For one, there are major health benefits: People who eat more plant-based protein tend to weigh less and have a lower risk of cardiovascular disease and diabetes than people who eat a lot of meat, and some research shows a meatless diet reduces your risk of death from any cause. Even if you're not interested in going fully meatless, sim RESULTS: Infants who were diagnosed with food allergy by the time they were 2 years of age were introduced to solids earlier (≤16 weeks of age) and were less likely to be receiving breast milk when cow’s milk protein was first introduced into their diet. CONCLUSIONS: This study supports the current American Academy of Pediatrics’ allergy prevention recommendations and the European Society of Pediatric Gastroenterology, Hepatology and Nutrition recommendations on complementary feeding to not introduce solids before 4 to 6 months of age.