

## CLINICAL SPECIFICATIONS

### WHEY PROTEIN

**Antigen Made From:**

Whey Protein purchased from antigen supplier

**Associated With:**

Allergy/hypersensitivity<sup>1,2</sup>

**Known Cross-Reactions:** Gliadin<sup>3</sup>
**Clinical Significance:**

Elevated levels of antibodies to Whey Protein indicate dairy protein immune reactivity. Although Whey supplementation has been proven to have healthful benefits such as the improvement of blood pressure and vascular function in obese patients<sup>2</sup> and stimulation of beneficial gut microflora in infants,<sup>1</sup> patients with cow's milk intolerance should avoid consuming whey. The casein: Whey protein ratio in native cow's milk is 80:201. Because whey contains lactose, it should be avoided by those who are lactose intolerant. Dried whey, used as a food additive, contains more than 70% lactose.<sup>4</sup>

**References:**

1. Lara-Villoslada et al. The balance between casein and whey proteins in cow's milk determines its allergenicity. J Dairy Sci, 2005; 88:1564-1660.
2. Pal and Ellis. The chronic effects of whey proteins on blood pressure, vascular function, and inflammatory markers in overweight individuals. Obesity, 2010; 18:1354-1359.
3. Vojdani and Tarash. Cross-reaction between gliadin and different food and tissue antigens, Food Nutri Sci, 2013; 4:20-32.
4. National Research Council (US). Under Utilized Resources of Animal Food Stuffs. Subcommittee on Underutilized Resources of Animal Feedstuffs Committee on Animal Nutrition Board on Agriculture National Research Council. National Academy Press: Washington, DC. 1983: page 29.