Currently, consumers are looking for quality and healthier products. Thus, marketplaces offer the development of functional foods, including beverages. However, in addition to their nutritional value, should give satisfaction to consumers as a result of the balance of his different sensory attributes, such as color, appearance, odor and flavor. The aim of this work was to study three Protein Isolate solutions intended to develop an orange-flavored soft drink added with Protein Isolate (PI). The solutions of 1% protein (w / v) were prepared with Protein Isolate (PI) and distilled water, of which PI1 - Protein Isolate Whey 90% protein, PI2 - Protein Isolate Whey 80% protein and PI3 - Soy Protein Isolate 90% protein; the solutions were submitted to the following analyzes: Brix, titratable acidity, pH, turbidity and color. Samples PI1 and PI3 showed, respectively, Brix 1.3 and 0.4, pH values 6.34 and 6.95; both showed yellow appearance and turbidity > 300 NTU. However, results of sample PI2 were satisfactory for the development of carbonated beverage, showing colorless, pH 3.3 and turbidity 32.62 NTU, which is lower than the maximum value not perceptible by consumers. According to the results, Protein Isolate Whey will be used at the next step, to develop a functional orange-flavored soft drink. The development of carbonated beverage added with Protein Isolate Whey can become a nutritional product and easily adapted in the process of soft drinks by industries, without high cost of investment.