The objective of this study was to assess how a whey–protein concentrate (WPC) supplement having TGF-β (unavailable commercially) is accepted by patients with Crohn's disease (CD) and determine the approximate composition and total amino acids content. Sensory analysis included an acceptance test with a nine-point facial hedonic scale, applied to 22 CD patients that have continuously received WPC for 16 weeks, and the sensory evaluation was carried out in three distinct stages: nearly simultaneously the first infusion of the biological drug, eight and sixteen weeks after the first evaluation. WPC mean composition indicated: 73.3% protein, 10.5% fat, 2.2% ash, 6.3% water; 7.7% carbohydrate. The WPC supplement has been shown as a good protein source and high content of essential amino acids, especially the branched chain ones (10.2g of leucine and 6.5g of isoleucine per 100g of protein), thus presenting high nutritional value. Although the supplement had not been well accepted by the aroma, flavour and texture by most patients after the first evaluation of the product, the acceptance of flavour increased after daily supplementation, about 50% of the individuals indicated that they liked the product flavour (values above six on the hedonic scale). Thus, the results indicate that the supplement has good potential to be marketed providing important nutritional properties for patients with Crohn's disease; however, for a large number of patients be encouraged to continuously perform supplementation is essential to improve the sensory quality of the product.