Well Wisdom

Immune Enhancing Nutrition

How do ImmunoPro®, RenewPro® and Vital Whey® compare to other whey proteins?

ImmunoPro®, RenewPro® and Vital Whey® are the only native* whey proteins available. They are 100% biologically active and contain the full range of the fragile immune modulating and regenerative protein components naturally present in raw milk from year-round natural pasture grass-fed cows. They are the result of years of work to perfect a system that produces only the highest quality native whey protein*.

Wellwisdom Native Whey Proteins are produced with a unique pasteurization method which does not use high heat and utilizes a proprietary filtration and drying method. It involves the minimum amount of processing. The result is a microbial safe product that exceeds all standards. They are not by-products of cheese manufacture. We do not use cross-flow filtration, microfiltration, hydrolyzation or ion exchange because these methods denature the original protein components.

These superior products contain the highest amounts of the glutathione precursor covalent bonded cysteine. Additionally they contain the full range and highest levels of the most important protein components: Lactoferrin, Immunoglobulins, Serum Albumin, Active Peptides and Growth Factors.

In contrast even the most expensive whey products available (they can be concentrates, isolates, ion exchange and hydrolyzed) are commercial denatured by-products of cheese manufacture. The vast majority is from grain-fed cows and even ones that claim to be grass-fed are still fed grain or hay in the colder months. Organic is not a helpful standard to look for as most all the organic milk is from grain fed cows.

All commercial production dairy products have definite limitations in preserving the biological activity of the whey proteins. The vital immune and regenerative components are destroyed from the commercial processing they all undergo. The milk and whey goes through a high heat pasteurization process twice, chemical modification and pH regulation to produce cheese and whey. Each of these steps damages/ denatures** the whey proteins. The damaged proteins are then filtered out and what remains is a narrow range of “undenatured” proteins that have survived the cheese and whey manufacturing process. Additionally the vital protein-bound fats have been removed. From this point on there is little heat added and some of these whey protein products are then referred to as undenatured/ cold process. It is not possible to undenature or restore the full biological activity of a protein if it has been damaged.

When considering a whey product it is best to ask, in writing, and request a written response from the distributor/ manufacturer, if there is any cheese production involved with the separation of the whey?

The Importance of Cysteine vs. Cystine

Cysteine (covalent bonded cysteine) is naturally occurring and there are exceptional levels of it contained in ImmunoPro, RenewPro and Vital Whey proteins. It is the optimal component for the intracellular production of glutathione (GSH). Cysteine is very scarce in our modern diet and therefore glutathione production is limited and deficiency is prevalent. If cysteine undergoes any standard pasteurization heating or processing, as all conventional dairy and dairy by-products do, it is denatured and converted to cystine.

Cystine is the form that is found in all of the commercial and claimed high-end whey proteins, as they are all by-products. ImmunoPro, RenewPro and Vital Whey are unique as they are the only native whey products and contain naturally occurring cysteine (covalent bonded). Bonded cystine, very different than covalent bonded, has become a marketing term and it is misleading. Two cysteine molecules bonded

together form cystine. It is created by denaturation (damage) to the milk and whey from induced heat and/ or pH stressors from the manufacture of cheese. This unbreakable bond forms a cystine molecule that is difficult for the body to utilize as a precursor for intracellular glutathione production.

Regarding Whey Protein Concentrate: The journal Immunology reports: The bioactivity occurs through the ability of the protein concentrate to help replenish Glutathione levels via continuous dietary provision of Glutathione precursors, especially cysteine, during lymphocyte proliferation, thus supporting an optimal immune response. This process seems to not only increase intercellular levels of Glutathione and precursors at the time of ingestion, but also builds up stores of these substances within the cells which lasts for a substantial post-ingestion time interval." Fidelus RK, Tsan MF. GSH and lymphocyte activation: a function of aging and autoimmune disease. *Immunology 61: 503-508, 1987*

*** Native: a:** of or relating to the naturally occurring conformation of a macromolecule, such as a protein. Constituting the original substance or source, **b:** found in nature especially in an unadulterated form.
*** Native Protein:** The concept of a protein in its natural state, in the cell, unaltered by heat, chemicals, enzyme action, or the exigencies (distress) of extraction.
** **Denature**: To cause the tertiary structure of (a protein) to unfold, as with heat, alkali, or acid, so that some of its original properties, especially its biological activity, are diminished or eliminated.
***Based on analysis of protein as determined by an independent laboratory using the SDS PAGE Gel method. This is the industry accepted method to determine the actual biological activity of a milk protein.

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