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Summary Statement
Purity Advantage of Yeast
ß-1,3 1,6-glucan for Immunostimulation *in vivo*

As simply as possible: The impurities in the yeast cell wall beta-glucan plaster over the sites on the glucan most active in binding the essential white blood cells surfaces to bring about protection from infecting organisms. This inefficient binding of the glucan prevents the white blood cells from becoming fully activated by encounter with the beta-glucan. The white blood cell activation is the primary immune system. The alternative immune system, through the array of several dozen serum complement proteins, can also be activated against invading organisms and is called the complement secondary immune system. The actual comparison of complement activation is by comparison to a known amount of crude yeast glucan, zymosan. The fact that the Wellmune WGP gives an activation with complement in some ratio with that of zymosan means that it has some surface available for the complement proteins to latch onto. On the other hand a more purified glucan finds more of the complement protein for activation to its protein splitting form. Thus, the Immudyne NQ gives a significantly higher complement activation value than the Wellmune WGP. Although in vitro we rate the biological activity of Immudyne's NQ yeast beta-glucan using serum complement activation, in vivo, in the alimentary canal where the glucan is therapeutically taken up, after assimilation through the gut, complexed glucan impurities inhibit its targeting high priority binding sites on the white blood cells. The difference in the NQ (7.5 mg) vs the WGP (250 mg) concentrations per capsule is that in vivo trials show the smaller amount of purified Immudyne NQ glucan finds its white blood cell sites very effectively to bring about reduction in bacterial infection. Taking a chance on the highly impure 250 mg/capsule WGP to do the same is probably much less reliable.

Approved by John R. Vercellotti, Ph.D.
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