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Beta-Glucan

National Cancer Institute

Source

National Cancer Institute. *Beta-Glucan*. NCI Thesaurus. Code C2678.

A polysaccharide isolated from the cell walls of bacteria, plants, and fungi with immunostimulant and antineoplastic activities. In a solubilized form, beta-glucan binds to a lectin site within complement receptor 3 (CR3) on leukocytes, priming the receptor to trigger cytotoxic degranulation of leukocytes when leukocyte CR3 binds to complement 3 (iC3b)-coated tumors. Thus, the attachment of beta-glucan to CR3 of circulating leukocytes simulates leukocytes to kill iC3b-coated tumor cells in the same way as they kill iC3b-coated yeast. (NCI04)