Brassinin is a phytoalexin originally found in cruciferous vegetables. This indole exhibits anticancer chemotherapeutic and chemopreventive activities. In prostate cancer cells, brassinin induces G1 phase cell cycle arrest and apoptosis, decreases the mitochondrial membrane potential, suppresses caspase 3 and PARP activation, and limits PI3K/Akt/mTOR signaling. In vivo, brassinin inhibits indoleamine 2,3-dioxygenase, inducing regression of mammary gland tumors. In other animal models, this compound inhibits DMBA-induced skin tumor formation. Like other compounds produced by cruciferous vegetables, brassinin may induce phase II enzymes, displaying potential antioxidative benefit.

**References**

