

Thematic course: Chemical composition of the genus *Amaranthus*. Part 2.

Inhibition of squalene biosynthesis and metabolism

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Abstract

Reducing the risk of cardiovascular disease is one of the key problems of modern medicine, a decision which is defined as the prevention and development of new medicines. In this review, we consider the approach based on the reduction of the level of cholesterol associated with low-density lipoproteins (LDL) – a key risk factor which can be reduced by inhibiting both the synthesis and metabolism of squalene. Inhibitors, both natural and synthetic, those of the squalensyntaza enzymes and enzymes of lanosterol synthesis: inhibitors of squalene epoxidase and inhibitors of 2,3-oxidosqualencyclase have been discussed.