

Modulation of nitric oxide (NO) biosynthesis in lactobacilli

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Abstract

We characterized effects of nitric oxide synthase (NOS) substrate L-arginine and classical inhibitors of mammalian NOS on nitric oxide (NO) biosynthesis in probiotic bacteria *Lactobacillus plantarum* 8P-A3. NO-synthase origin of nitric oxide detected by fluorescent NO indicator 1,2-diaminoanthraquinone (DAA) was confirmed by induction of NO production by exogenous L-arginine. None of the used inhibitors of three isoforms of mammalian NOSs (L-NAME, L-NIL, nNOS inhibitor I) showed significant inhibitory effect of lactobacillar NO-synthase activity. © 2011 Allerton Press, Inc.

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Keywords

inhibitors, L-arginine, lactobacilli, NO-synthase, viability