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Identification and Analysis of a Mercapturic Acid Conjugate of Indole-3-methyl Isothiocyanate in the Urine of Humans who Consumed Cruciferous Vegetables

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Highlights

Indole-3-carbinol (I3C) from cruciferous vegetables has cancer prevention properties

I3C is formed from glucobrassicin upon consumption of cruciferous vegetables

Indole-3-methyl isothiocyanate (IMITC) is the presumed bioactive intermediate

IMITC-NAC, the N-acetyl cysteine conjugate of IMITC, was synthesized

IMITC-NAC was identified for the first time in humans who ate cruciferous vegetables

Abstract

Glucobrassicin, a quantitatively significant constituent of *Brassica* vegetables, gives rise to indole-3-carbinol (I3C) and its dimer di-indolylmethane (DIM) when the vegetables are chewed. I3C and DIM have