Y. JIANG, J. ZHAO, L. HU* (THE STATE UNIVERSITY OF NEW JERSEY, PISCATAWAY, USA) 2,2-Dimethyl-2-(o-nitrophenyl)acetyl (DMNA) as an Assisted Cleavage Protecting Group for Amines *Tetrahedron Lett.* **2002**, *43*, 4589–4592, DOI: 10.1016/S0040-4039(02)00891-2.

Deprotection of 2,2-Dimethyl-2-(o-nitrophenyl)acetyl (DMNA) Group in Amino Acids and Peptides

Significance: Protecting groups play an inherent role in organic synthesis. They are the backbone for peptide drug discovery. Thus, chemists are always looking to develop new protecting groups which can easily be installed and removed after the reaction. In 2002, the authors developed a one-step protocol for the deprotection of 2,2-dimethyl-2-(o-nitrophenyl) acetyl (DMNA) group in amino acid derivatives and peptides.

Comment: Pd/C- or PtO_2 -catalyzed hydrogenation in presence of 10% AcOH is highly efficient for the deprotection of 2,2-dimethyl-2-(o-nitrophenyl) acetyl (DMNA) group in amino acid derivatives and peptides. This protocol is simple and mild. Other protecting groups are not affected under these reaction conditions.

Category

Peptide Chemistry

Key words

protecting groups

2,2-dimethyl-2-(onitrophenyl)acetyl group

hydrogenation



SYNFACTS Contributors: Hisashi Yamamoto, Isai Ramakrishna Synfacts 2023, 19(05), 0529 Published online: 14.04.2023 DOI: 10.1055/s-0042-1752480; Reg-No.: H03523SF