the reaction of some amino acids in the diffrent aromatic compounds and synthesis of derivatives with expected biological activites

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Several~ 3,5-dinitro benzoyl amino acids were readilyprep&~ed by direct reaction -of 3,5-dinitro benzoyl chloride(Xlll) with the appropriate amino acids in dioxane Et3Nmixture. Coupling reaction with L-, B-and DL-alanine, L-andDL-Serine, L-leucine, L-and Dl-phenyl alanine and L_tyrosineneeded 1 : 1.2 mole of the .acid chloride ((Xlll) and theamino aci d respec tivily (Xl V - XXll).(XlV) , A = L - Ala •, (XU) , A = L - Leu(XV) , A = B - Ala •, (XX) , A = L - Phe(XVl) , A = DL - f.la •, (XXl) , A = DL - Phe(zvn.) , A ••L - Ser ; (XXll) ,A=L-Tyr(xvin.), A = DL - SerSyn~hesis of 3,5 dinitro benzoyl amino acid methylesters (XXlll _ XXX IV)were successively performed bycoupling 3,5 _ dinitro benzoyl chloride (Xlll) with theappropriate amino acid methyl esters in dioxane - EtJNmedium.-11-(zxua) , A = Gly - OMe •• (XXlX) , A = DL - Val-Ollie(XXlV) , A = L - Ala - OMe,(XXX) , ll. = L- - Leu-OMe(XXV) , .4 = B - I.la - OMe,(XXXl) , A = DL-nor-Leu-CMe(XXVl) , /l. = L - Ser - OMe,(XXXll) , I, = DL-Phe-OMe(XXVII) • A = DL-Ser- OMe • (XXXlll) , A = L-tyr - OMe(XXVlll) , A = L-Val - OMe , (XXXlV) ,A=L-Tryp-OMelrepQration.of the hydrazides (XXXV-XLIII) wereeasily performed by the action of hydrazine hydrate on thec~~reeponding methyl esters in ethanol.o~~)- co~ _~ _ COBHEH~o N (2 R(XXXV- XLlll)(XXXV) , A = L - Ala - N2 HJ ; (XL) A = L-Leu-N2HJ(XXXVI) , A = B - Ala -•.. N2 HJ ; (XLI) A= Dl-nor-Leu-N2HJ(XXXVII), I. ””L - Ser - N2H3 ; (XLll) A = L-Tyr -N2H3(XXXVIll), f. = L - Val - N2H3 ; (XLlll)A =. L-Tryp- n2H3(XXXIX), A = DL-Val n2H3-----.- - _._----------),11 -Coupl~ng of some J,5-dinitro benzoyl amino acidswith different amino acid methyl esters in tetrahydroturan-EtJ~ using the dicyclohexylcarbodiimide method afforded thedipeptide~ (XLIV - Llll).02No- ’I ’ CO;1H - CH - ,°2N R(XLIV -A• •-eONH-eHIR’- COOCHJL11l)(L,lV) , A = L - Ala DL - Val - OMe(XLV) , 1l. = L - .Ha DL - Phe - OMe(XLVl) , A = Dl.- l.la DL - Val - OMe(XLVll) t A = L - Ser - L - Val - OMe(XLV HI),A = L - Ser DL - Phe - OMe(XLU) t A = L - Fhe DL - Val - OMe(L) t A = L -Tyr DL - Ser - OMe(LI) t A = L -Tyr DL - Val - OMe(L11) t 1. =L -Tyr DL - nor - Leu - OMe(LUI) I A = L - Tyr DL - Phe - OMeThe biological activities of all the synthesizedJ,5-dinitro benzoyl amino acids, esters, hyd~Qzides anddipeptide esters (XlV - Llll) were tested againstdifferent gram - Positive, gram-megative microorganismsand fungi. Some of the synthesized amino acid derivativeswere found to possess different ”biological activities.