

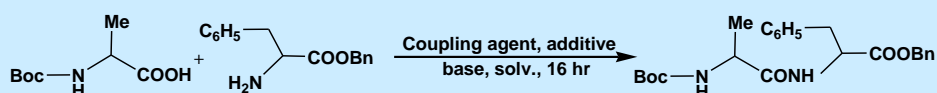
Pentafluorophenol-peptide synthesis

(ペンタフルオロフェノール-ペプチド合成)

C₆F₅OH

Purity	99%
CAS Number	771-61-9
Molecular Formula	C ₆ HF ₅ O
Molecular Weight	184.07

1. Alkylene carbonate solvents promote amino acid coupling reaction.

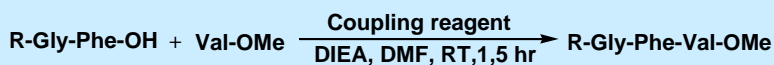
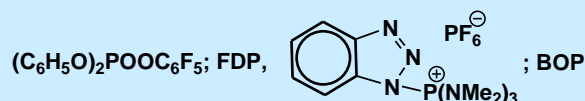
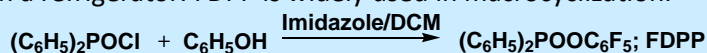


N	Coupling reagent	Additive	Temp (°C)	Base	Solvent	Yd.(%)
1	DCC	PFP	20	Et ₃ N	CH ₂ Cl ₂ /DMF	76
2	DCC	PHP	40	Et ₃ N	EC	96
3	EDC	HOBt	20	iPr ₂ EtN	CH ₂ Cl ₂ /DMF	81
4	EDC	HOBt	20	iPr ₂ EtN	PC	93

Green Chem., 2017, 19, p1685-1691

Application

2. Pentafluorophenyl diphenylphosphinate(FDPP) is an efficient coupling reagent without racemization, and can be stored for several months in a refrigerator. FDPP is widely used in macrocyclization.



Reagent	FDPP	FDP	HBTU	BOP	DCC
DL%(HPLC)	0.0	5.4	9.0	9.6	18.8

Tetrahedron Let., Vol.32, Issue 46, 1991, p6711-6714

Tetrahedron, 60, 2004, p2447-2467

Properties:

Appearance	Solid
Boiling point, °C	142-143
Melting point, °C	34-36

Capacity:	10MT/moth
Packing:	50kg PE-lined steel drum
UN, PG:	2811 III