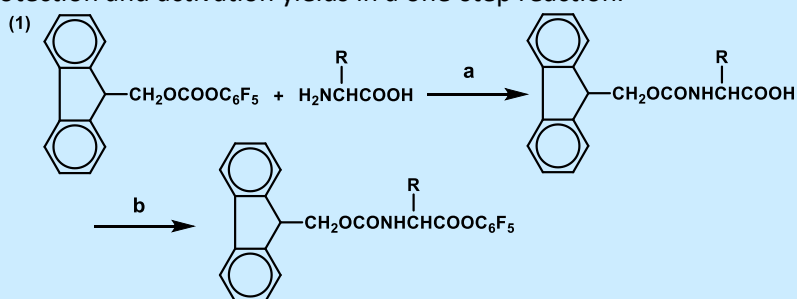


Pentafluorophenol (ペンタフルオロフェノール) C₆F₅OH

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

In order to simplify the polypeptide synthesis method, we investigated to protect the amino group of amino acids and activate the carboxyl group in one step (Fmoc-pfp, which was widely used in the past, required two steps). CCl₃CH₂OCOOC₆F₅; Trichloroethyl pentafluoro-phenyl carbonate showed good protection and activation yields in a one-step reaction.



a. NaHCO₃/H₂O/CH₃COCH₃/rt*4-24hr,

b. PFP, DCC, CH₃COOEt, 0 degC*2hr

c. Troc-pfp, DMF, 0 degC, Py, 5hr

Protecting group, activating group reaction yield

	Amino acid	Fmoc-NHCHR-COOH	Fmoc-NHCHR-pfp	Troc-NHCHR-pfp
1	H-PrOH	82%	89%	90%
2	H-ValOH	90	77	87
3	H-IleOH	83	70	85
4	H-LeuOH	83	78	85
5	H-AlaOH	93	74	70

J. Peptide Sci., 2009, 15, p849-855, Synthesis Communication, 1986 April, p303-305

Properties:

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

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