

Entry	Resin	Acid	Amine	HPLC Purity ^a	GC Amine ^b % Residue	% Yield (isolated)
1	PS-Carbodiimide	3,3-Diphenylpropionic	1,2,3,4-Tetrahydroisoquinoline	90	0	86
2	N-Cyclohexyl-N'Me	3,3-Diphenylpropionic	1,2,3,4-Tetrahydroisoquinoline	90	11	85
3	P-EDC	3,3-Diphenylpropionic	1,2,3,4-Tetrahydroisoquinoline	88	7–20	73
4	PS-Carbodiimide	3,3-Diphenylpropionic	3,3-Diphenylpropylamine	100	0	86
5	N-Cyclohexyl-N'Me	3,3-Diphenylpropionic	3,3-Diphenylpropylamine	100	10–25	77
6	P-EDC	3,3-Diphenylpropionic	3,3-Diphenylpropylamine	84	30	72
7	PS-Carbodiimide	3-Iodobenzoic acid	Benzylamine	100	0	90
8	N-Cyclohexyl-N'Me	3-Iodobenzoic acid	Benzylamine	93	10–20	72
9	P-EDC	3-Iodobenzoic acid	Benzylamine	94	10–20	60
10	PS-Carbodiimide	3-Iodobenzoic acid	1,2,3,4 Tetrahydroisoquinoline	98	0	88
11	N-Cyclohexyl-N'Me	3-Iodobenzoic acid	1,2,3,4-Tetrahydroisoquinoline	18	96	75
12	P-EDC	3-Iodobenzoic acid	1,2,3,4-Tetrahydroisoquinoline	10	97	73
13	PS-Carbodiimide	Boc-Phe-OH	3,5-Dimethylaniline	100	0	89
14	N-Cyclohexyl-N'Me	Boc-Phe-OH	3,5-Dimethylaniline	98	0	83
15	P-EDC	Boc-Phe-OH	3,5-Dimethylaniline	96	0	76

Table 1. Amide formation results for three different carbodiimide resins.

^aHPLC analysis: Microsorb C18 3 μ (100 A) column. CH₃CN:H₂O with 0.1% TFA, 10–100%, 10 min.

^bGC analysis: HP-5 phenylmethylsilicone column 120–300 °C, 20 °C/min, 10 min.