

AARVI CHEM AI — SYNTHESIS REPORT

Target SMILES: CC1=C2[C@H](C(=O)[C@ @]3([C@H](C[C@ @H]4[C@](C[C@H]3[C@ @H](C[C@ @]2(C)C)(C[C@ @H]1OC(=O)[C@ @H](C[C@H](C5=CC=CC=C5)NC(=O)C6=CC=CC=C6)O)O)OC(=O)C7=CC=CC=C7)(CO4)OC(=O)C)OC(=O)C

Overall Confidence: 0.5

Selected Best Route

Route Score: 0.35

Step 1 — amide formation

| | |
|----------------|----------------------|
| Reactants | Acid chloride, Amine |
| Solvent | DCM |
| Base | Et3N |
| Temperature | 0–25 °C |
| Feasibility | 0.5 |
| Expected Yield | N/A |
| Warnings | None |

Step 2 — *sn2* substitution

| | |
|----------------|---------------------------|
| Reactants | Alkyl halide, Nucleophile |
| Solvent | DMF |
| Base | K2CO3 |
| Temperature | 40–80 °C |
| Feasibility | 0.5 |
| Expected Yield | N/A |
| Warnings | None |

Step 3 — *sn2* substitution

| | |
|----------------|---------------------------|
| Reactants | Alkyl halide, Nucleophile |
| Solvent | DMF |
| Base | K2CO3 |
| Temperature | 40–80 °C |
| Feasibility | 0.5 |
| Expected Yield | N/A |
| Warnings | None |

Final Recommendation

Proceed with the selected route for laboratory synthesis. Steps with low confidence or yield may require optimization.