

# NMR characterisation and coupling of H-GlcAPC-OH $\beta$ -SAA derivatives on solid phase

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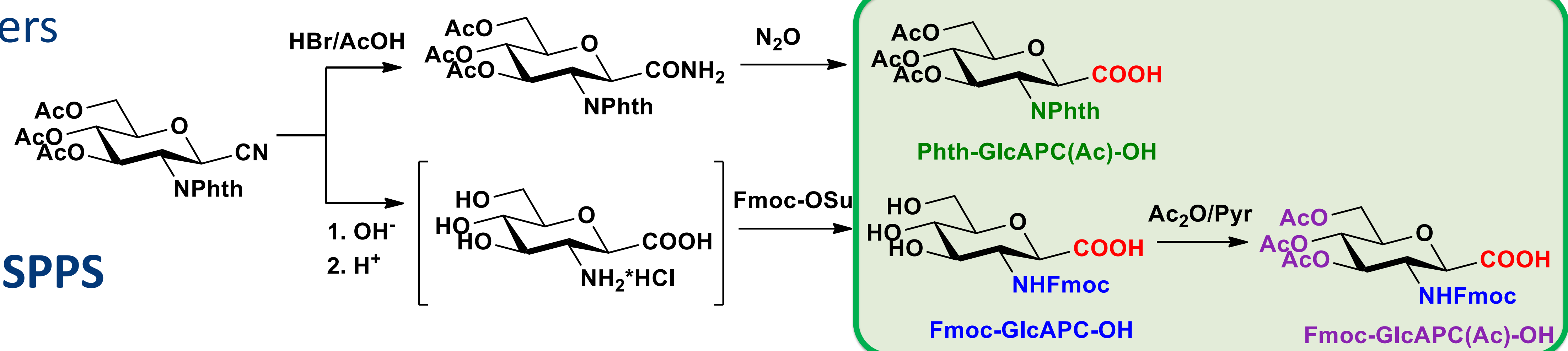
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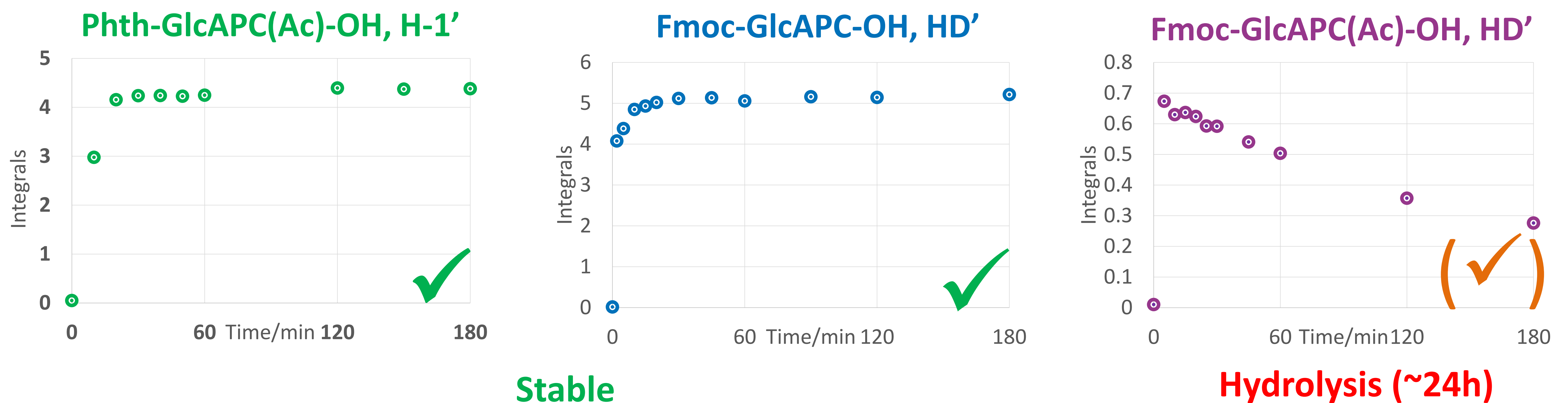
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- $\beta$ -SAAs as foldamer monomers
- **Efficient synthesis**
- Active ester and coupling followed by NMR
- **GXXG model peptides with SPPS**

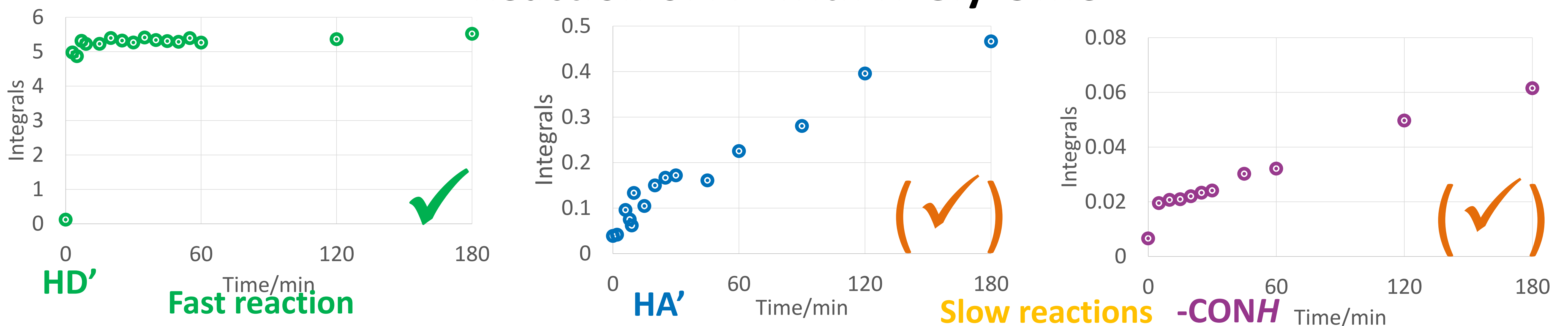
## Aims and synthesis



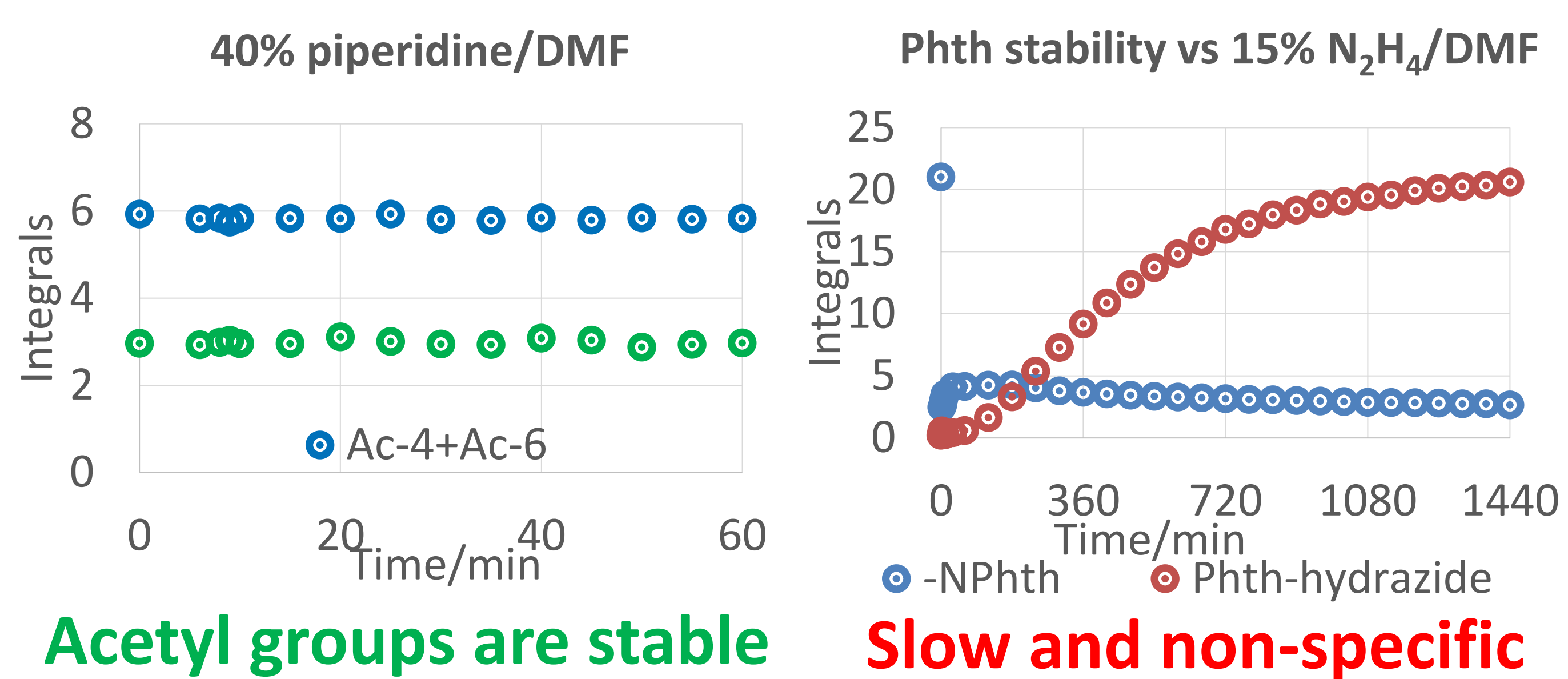
## Active ester (AE) formation with PyBOP/DIEA



## Reaction of AE with H-Gly-OMe



## Protecting group stabilities



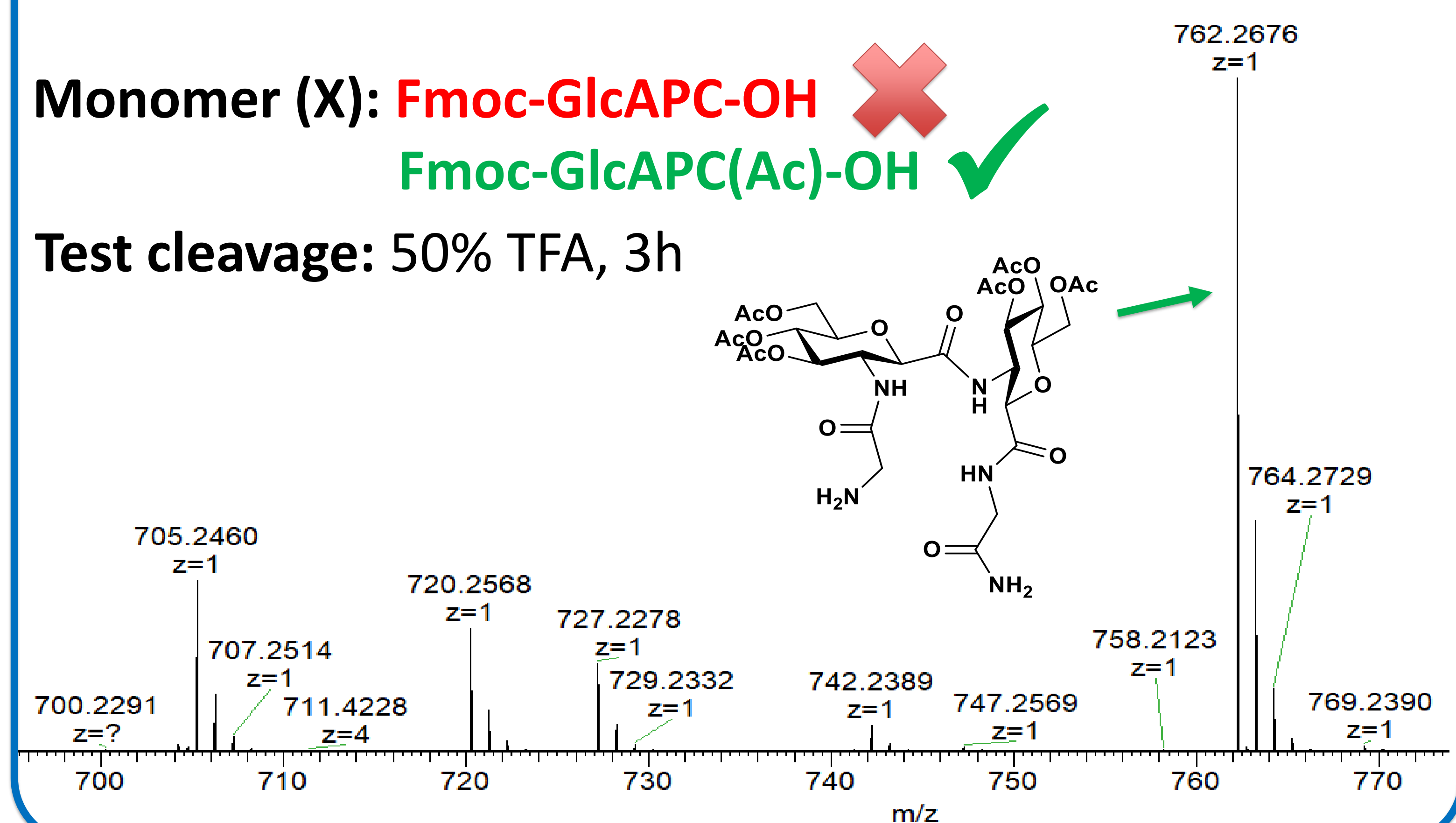
## Conclusion

Synthesis of various protected  $\beta$ -SAAs. **Active ester formation was followed by NMR.** Based on that, the best protections are **Fmoc and OAc.** **Successful synthesis of GXXG on solid phase** which confirm the NMR results.

## GXXG models

Monomer (X): **Fmoc-GlcAPC-OH** (marked with a red X)  
**Fmoc-GlcAPC(Ac)-OH** (marked with a green checkmark)

Test cleavage: 50% TFA, 3h



Y. Suhara, M. Kurihara, A. Kittakac, Y. Ichikawaa; Tetrahedron 62 8207–8217 (2006)  
 V. Goldschmidt Gőz, A. Nagy, V. Farkas, E. Keszei, A. Perczel; RSC Advances 9(53): 30720–30728 (2019)  
 A. Nagy, V. Goldschmidt Gőz, I. Pintér, V. Farkas, A. Perczel; Amino Acids 51(4), 669–678 (2019)

