



## LCC'S MOLECULES OF THE MONTH High Quality Synthons for High Quality DELs

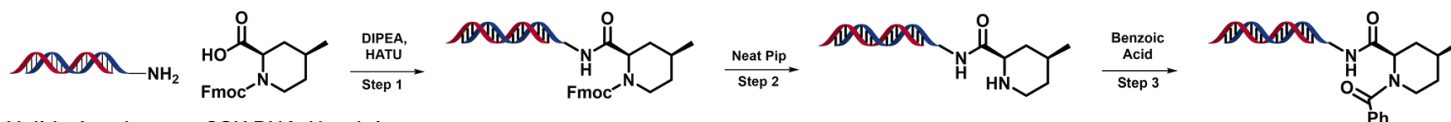
During 2022, we have collaborated with Anagenex (a leading practitioner in DEL-ML drug discovery) on a project which has involved the validation of LCC's DEL synthons. Our 'Molecules of the Month' this month highlights the results of this validation work, to further solidify how LCC's **high-quality DEL synthons** could positively impact your DEL libraries.

401 of our FmocAA's were tested on the validation protocol below. **~80% scaffolds showed >70% conversion, and ~20% scaffolds >50%** on both the acylation onto DNA and benzoic acid capping steps. Additionally, **~80% scaffolds showed between 50 to 75% conversion of SM to final product after all 3 steps**. We are now using the positive and negative data to **guide future scaffold design and library synthesis** to maintain a high-quality collection.

Are you looking for **chirally-pure material** with absolute stereochemistry determined and chemical purity of  $\geq 95\%$ ?

**Novel,  $sp^3/3D$ -rich synthons with diverse exit vectors?**

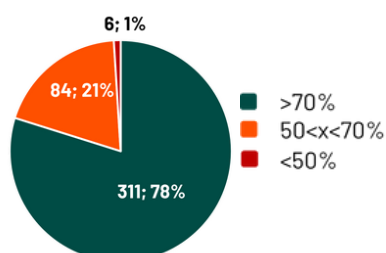
**Validated synthons to optimize your DEL library synthesis? Look no further!**



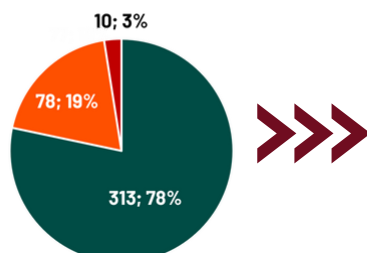
Validation done on GSK DNA-Headpiece

1. Installation of Fmoc Amino Acid	2. Fmoc deprotection	3. Capping with Benzoic Acid
<ul style="list-style-type: none"> <li>Suspend oligo at 1 mM in 250mM pH 9.5 sodium borate buffer</li> </ul>	<ul style="list-style-type: none"> <li>Resuspend oligo at 1mM in water</li> </ul>	<ul style="list-style-type: none"> <li>Resuspend oligo at 1mM in 250mM pH 9.5 sodium borate buffer</li> </ul>
<ul style="list-style-type: none"> <li>Prepare acid premix (in order of addition)               <ul style="list-style-type: none"> <li>100 eq Fmoc Amino Acid BB (200mM DMA)</li> <li>100 eq DIPEA (200mM DMA)</li> <li>100 eq HATU (200mM DMA)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Add 10% v/v neat piperidine</li> <li>Vortex, allow to react at RT for 1hr</li> <li>Ethanol crash</li> </ul>	<ul style="list-style-type: none"> <li>Add 100 eq. benzoic acid (200mM DMA)</li> <li>Add 100 eq. DMT-MM (200mM in water)</li> <li>Vortex, allow to react for 16hr at RT</li> <li>Ethanol crash, QC via LCMS</li> </ul>
<ul style="list-style-type: none"> <li>Add premix to oligo, vortex and allow to react at RT overnight</li> </ul>		
<ul style="list-style-type: none"> <li>Ethanol crash, QC via LCMS</li> </ul>		

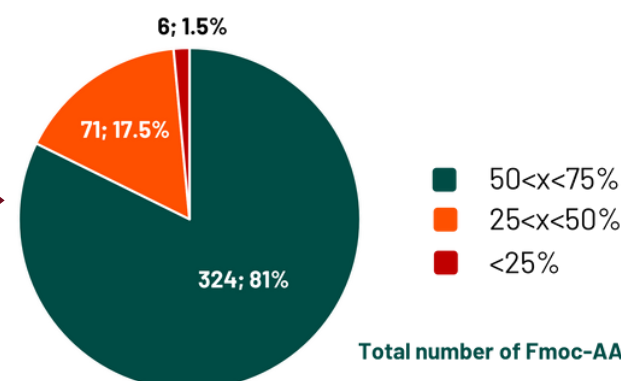
### Acylation onto DNA (Step 1)



### Benzoic Acid Capping (Step 3)



### Overall yield



Total number of Fmoc-AA: 401