1

$$\begin{array}{c|c}
\hline
 & TBSOTf \\
 & i-Pr_2NEt
\end{array}$$

$$\begin{array}{c|c}
\hline
 & O & OTBS \\
\hline
 & I-Pr_2NEt
\end{array}$$

$$\begin{array}{c|c}
\hline
 & O & OTBS \\
\hline
 & OTBS
\end{array}$$

$$\begin{array}{c|c}
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 & O & OTBS
\end{array}$$

$$\begin{array}{c|c}
\hline
 & O & OTBS
\end{array}$$

$$\begin{array}{c|c}
\hline
 & O & OTBS
\end{array}$$

retro Ireland-Claisen rearrangement

2

3