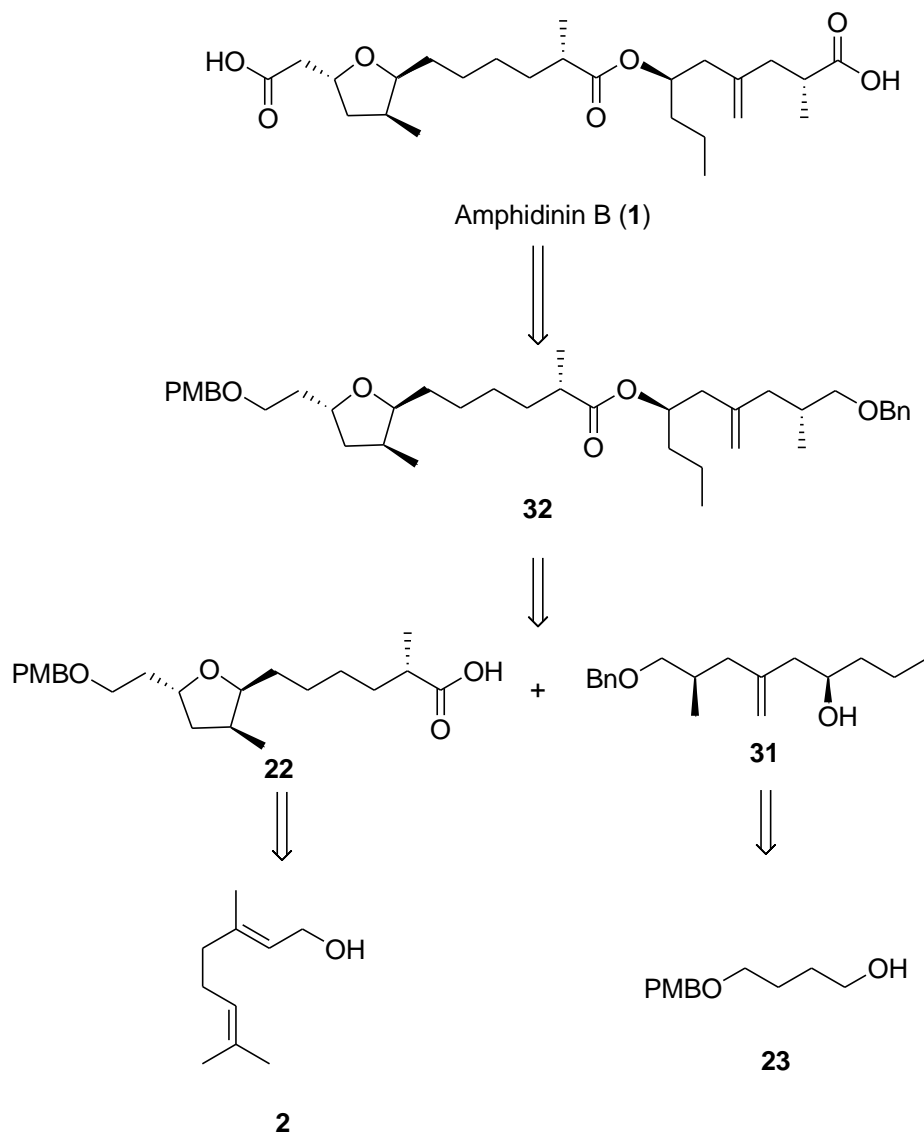


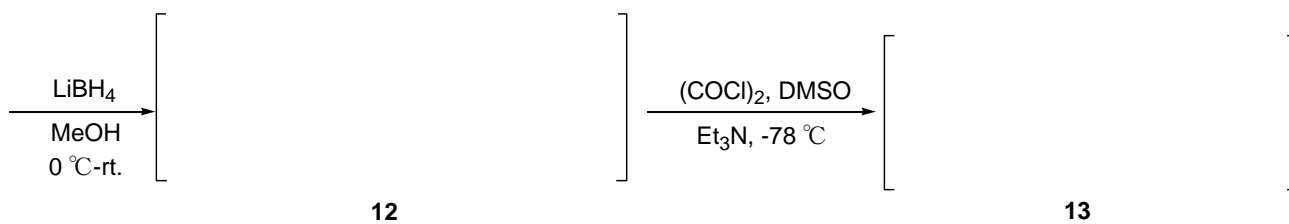
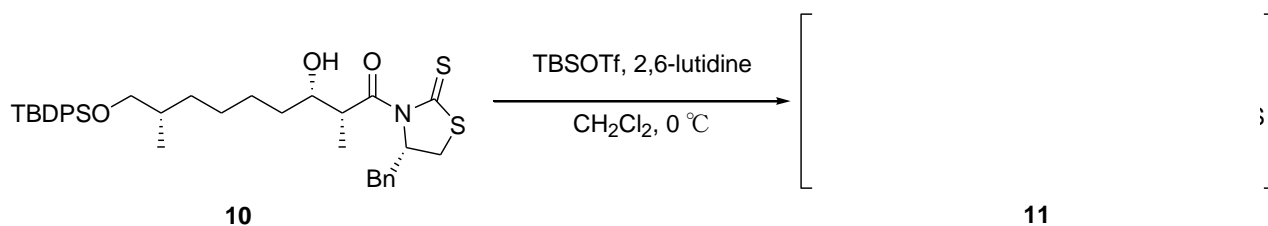
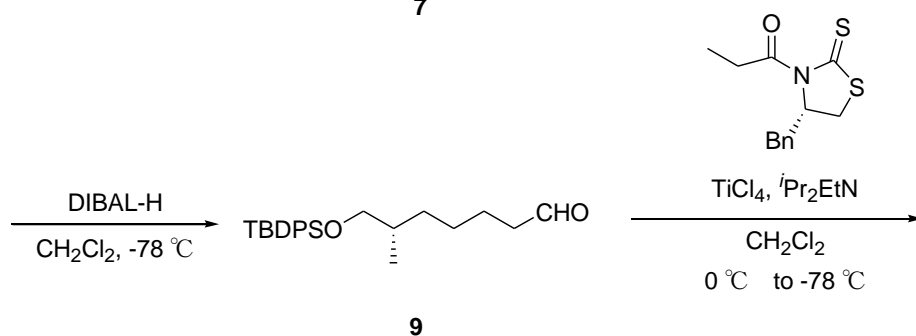
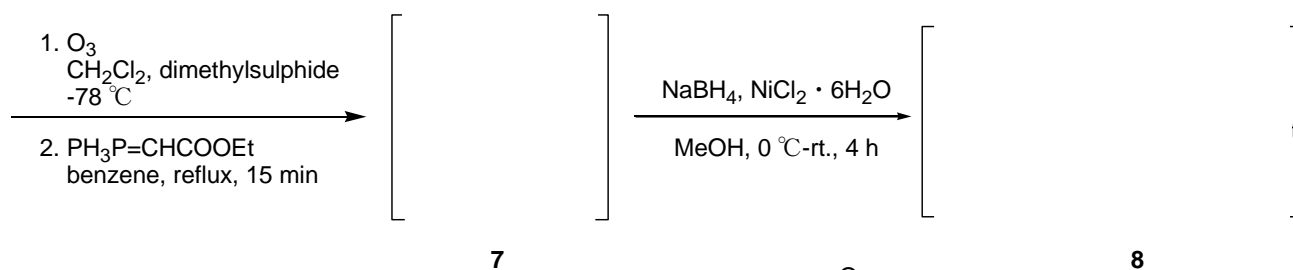
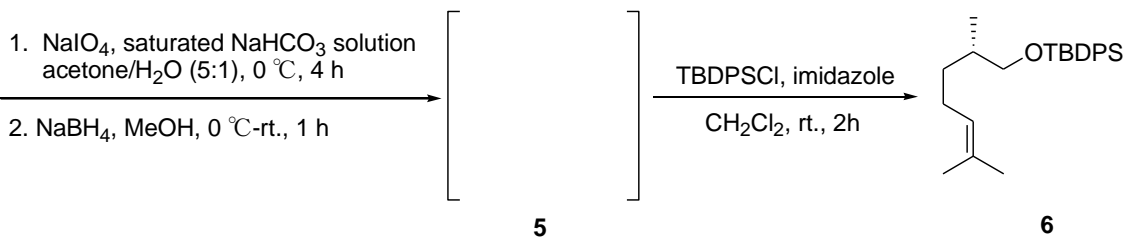
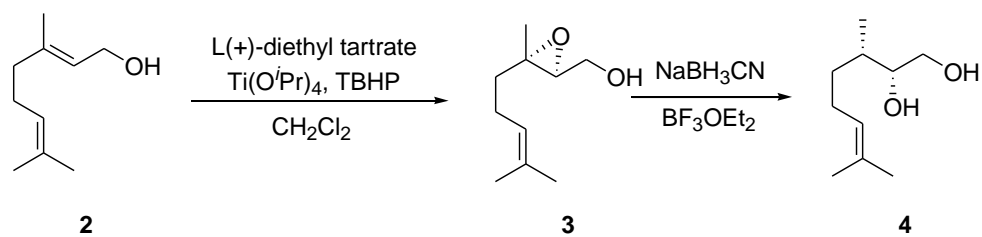
Amphidin B (1)

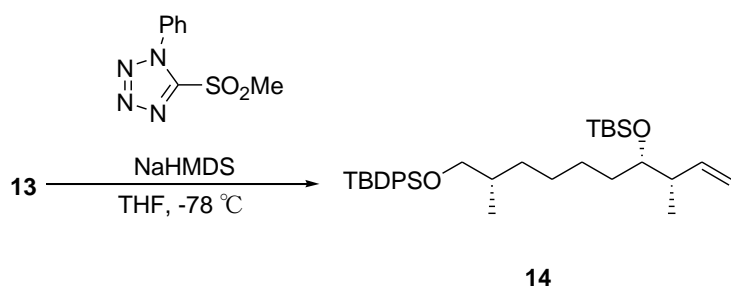
Amphidin B は 2006 年に渦鞭毛藻 *Amphidinium* sp から初めて単離され、その構造が決定された。この化合物は乳がん細胞株に対して強力な活性を示すことがわかっている。今回著者らは商業的に入手可能な化合物から Amphidin B の全合成を行った。

## Retrosynthetic analysis of Amphidin B (1)

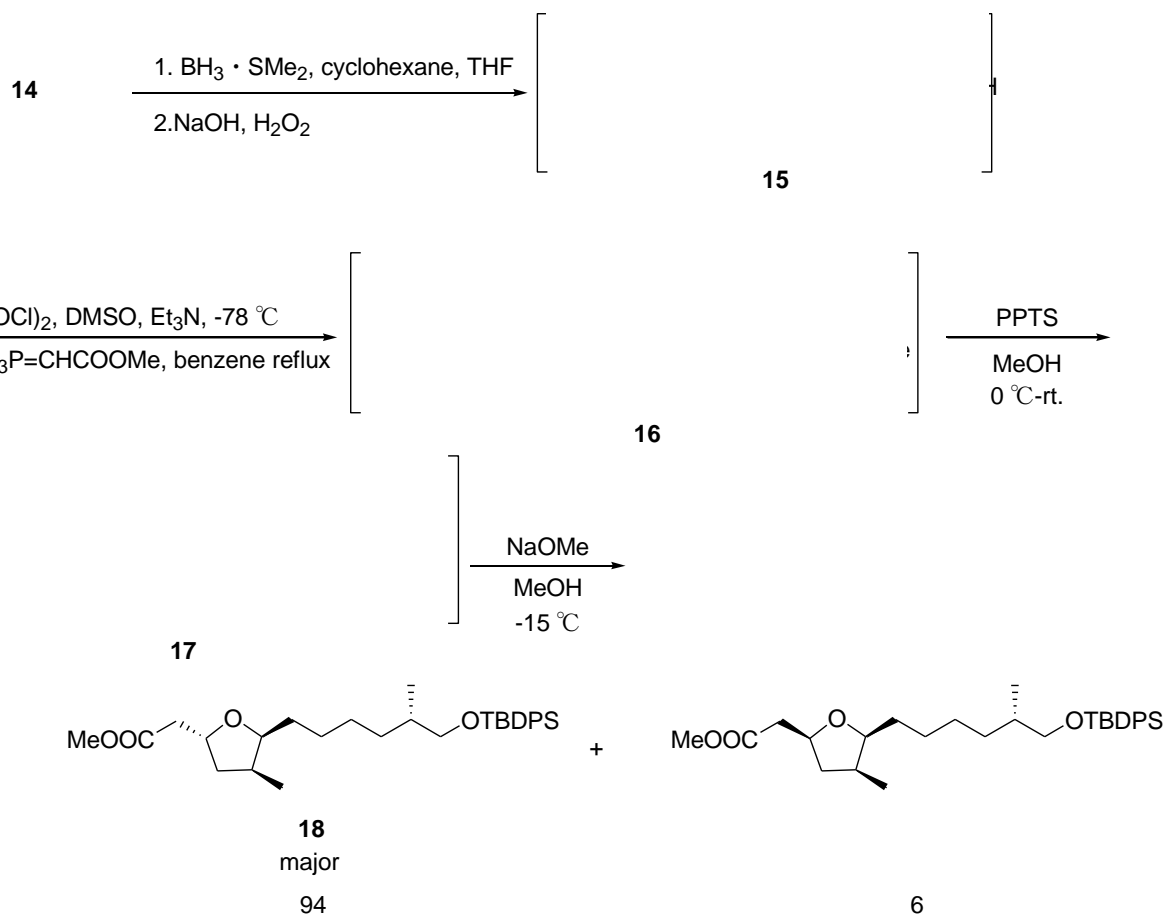


○Synthesis of 21

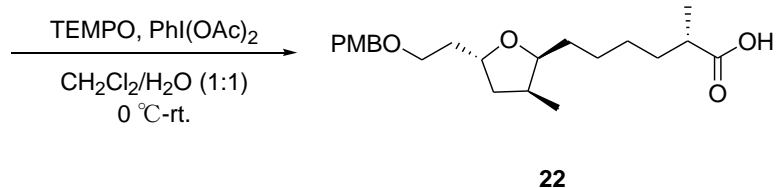
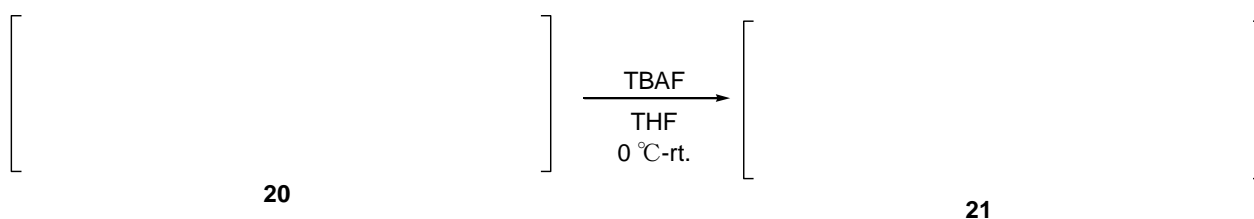
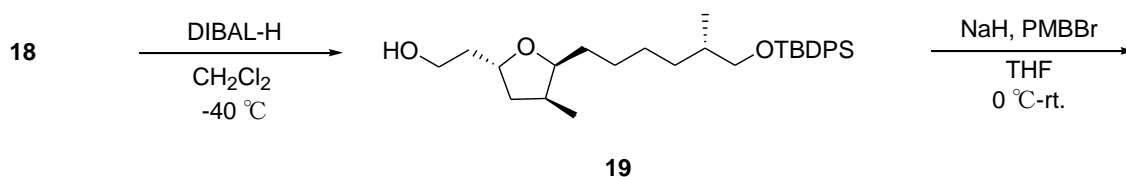




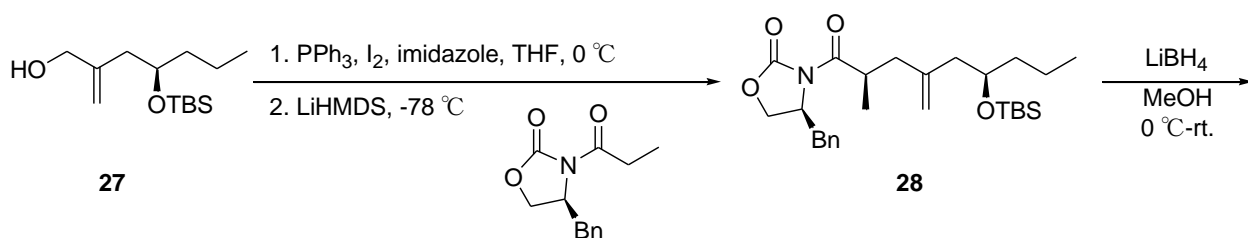
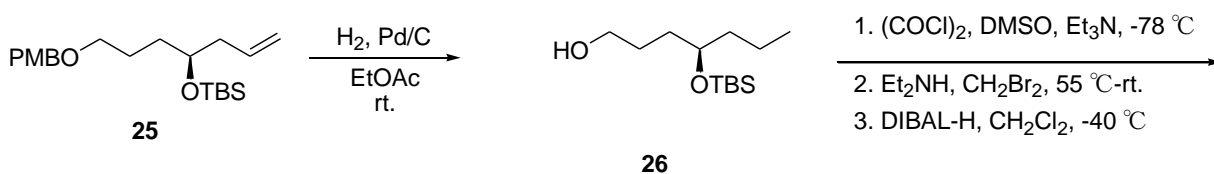
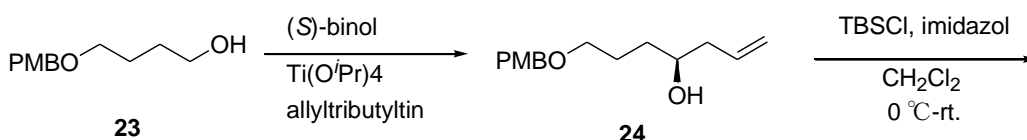
Reaction mechanism 13→14

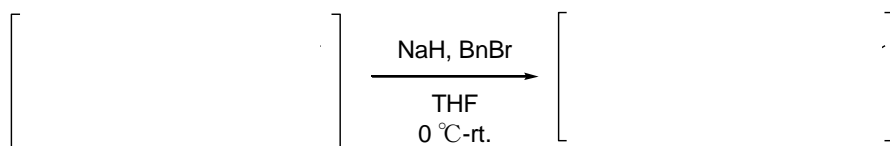


Reaction mechanism 17→18 (oxa Michael addition)



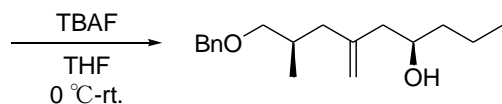
○Synthesis of 31





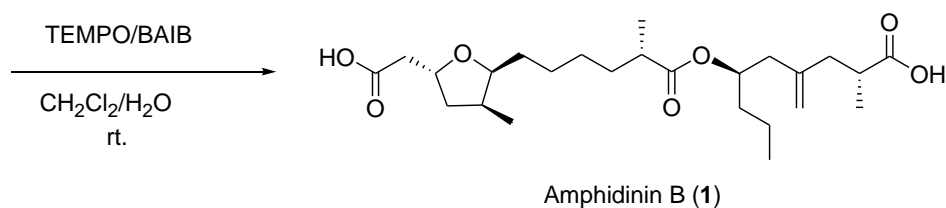
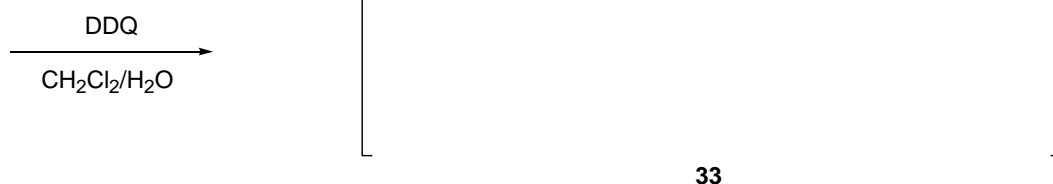
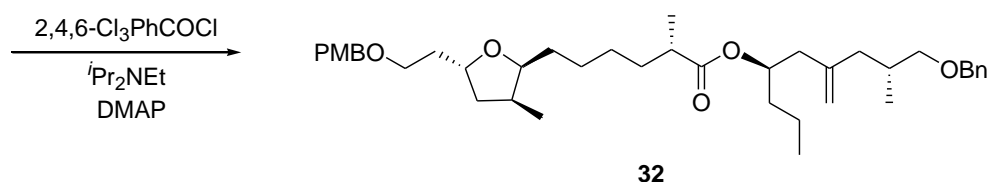
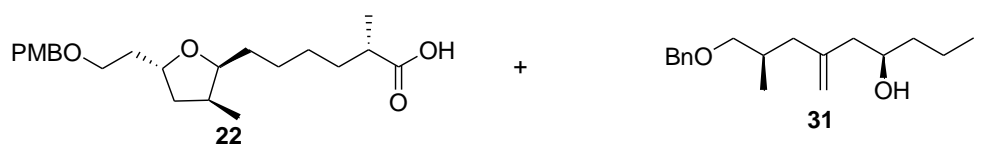
29

30



31

○Synthesis of Amphidinin B (1)



略称

TBDPS : *tert*-butyldiphenylsilyl, TBS : *tert*-butyldimethyl silyl

PPTS : pyridinium *p*-toluenesulfonate, PMB : *p*-methoxy benzyl,

TBAF : tetra-*n*-butylammonium fluoride, TEMPO : 2,2,6,6-tetramethylpiperidine 1-oxyl

DDQ : 2,3-dichloro-5,6-dicyano-*p*-benzoquinone

BAIB : iodebenzene diacetate