

18-membered macrolide with four stereogenic centers;

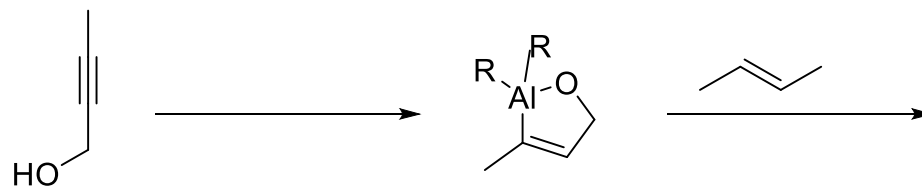
Exhibits inhibitory growth of human cervical cancer and leukemia cells;

Cytotoxic against various human tumor cell lines in submicromolar concentrations;

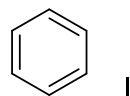
Biselyngbyolide B possesses 30- to 100- fold apoptosis-induction compared to congener, Biselyngbyaside

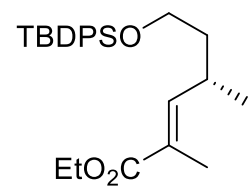
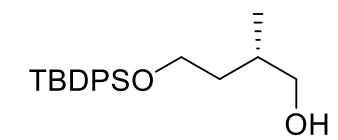


"Jamison's Protocol":

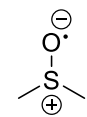


DMP Oxidation:

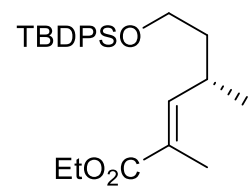
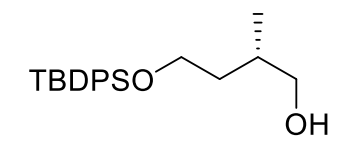




Swern Oxidation:

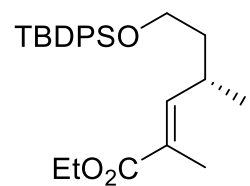
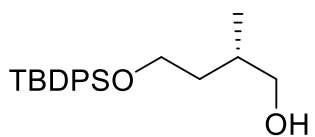


Witting Olefination:

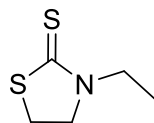


DIBAL-H Reduction:

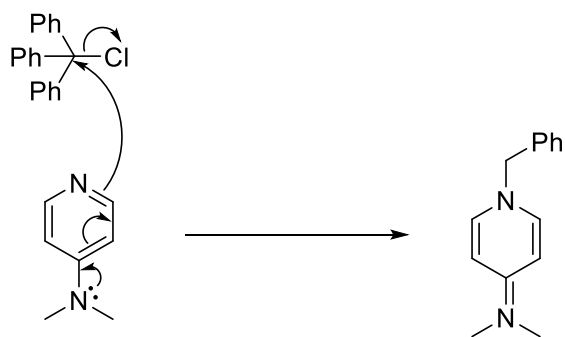
Crimmins

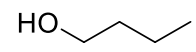
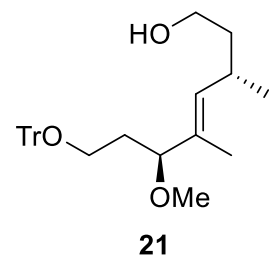


Sodium Borohydride Reduction:

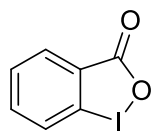


Hydroxyl Protection:

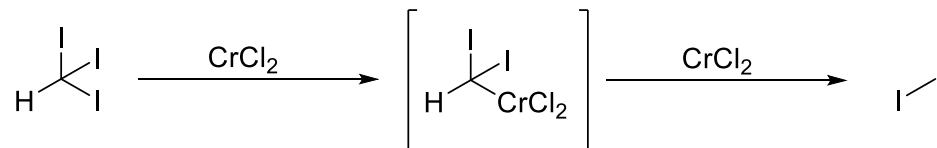


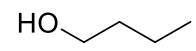
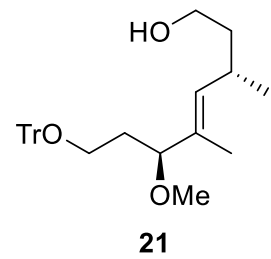


IBX Oxidation:

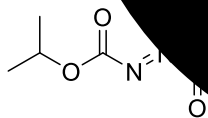


Takai Olefination:

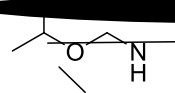




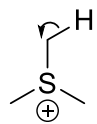
Mitsunobu Reaction:



Oxidation to Sulfone:



Epoxide Opening:



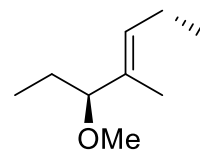
Silyl Protection:

Dihydroxylation:

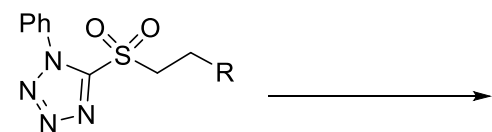
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Sodium Periodate Diol Cleavage:



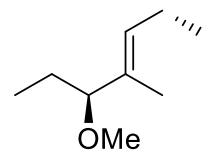


Julia-Kocienski Olefination:

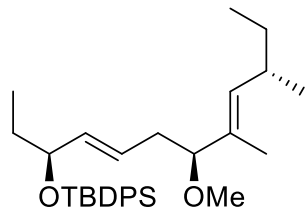


Desilylation with CSA:





Pinnick Oxidation:



Heck Reaction:

Pd(0)

R

| | | | | |
|---|---|----|---|---------------|
| 1 | Pd(PPh ₃) ₄ , NEt ₃ , MeCN | 60 | 3 | decomposition |
| 2 | PdCl ₂ (MeCN) ₂ , NEt ₃ , CO ₂ H ₂ , MeCN | 25 | 3 | decomposition |
| 3 | | | | |
