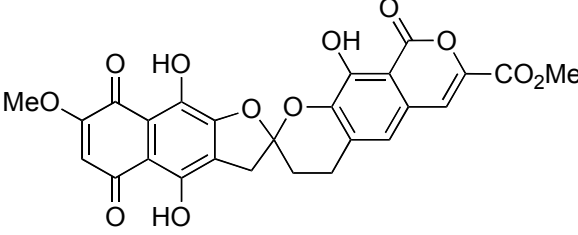
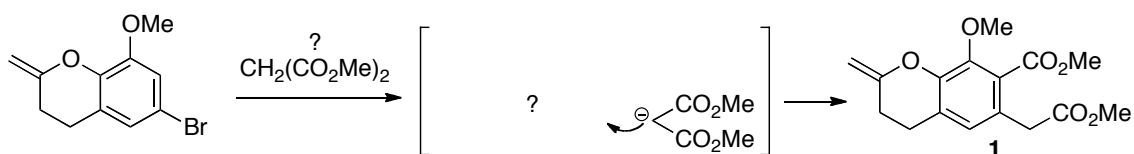
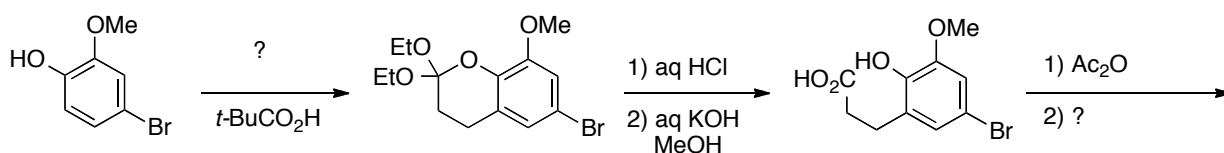
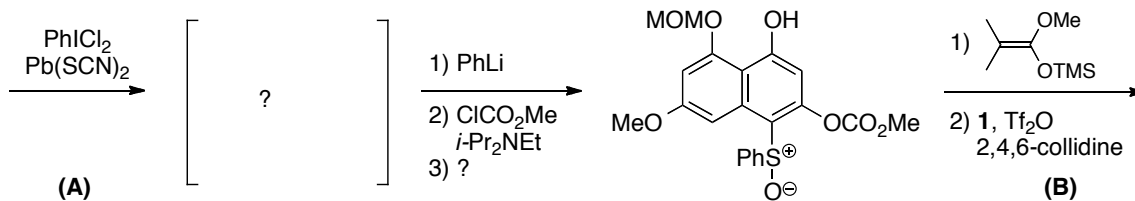
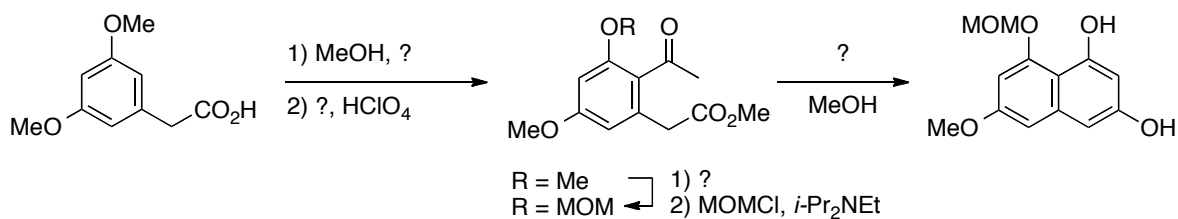
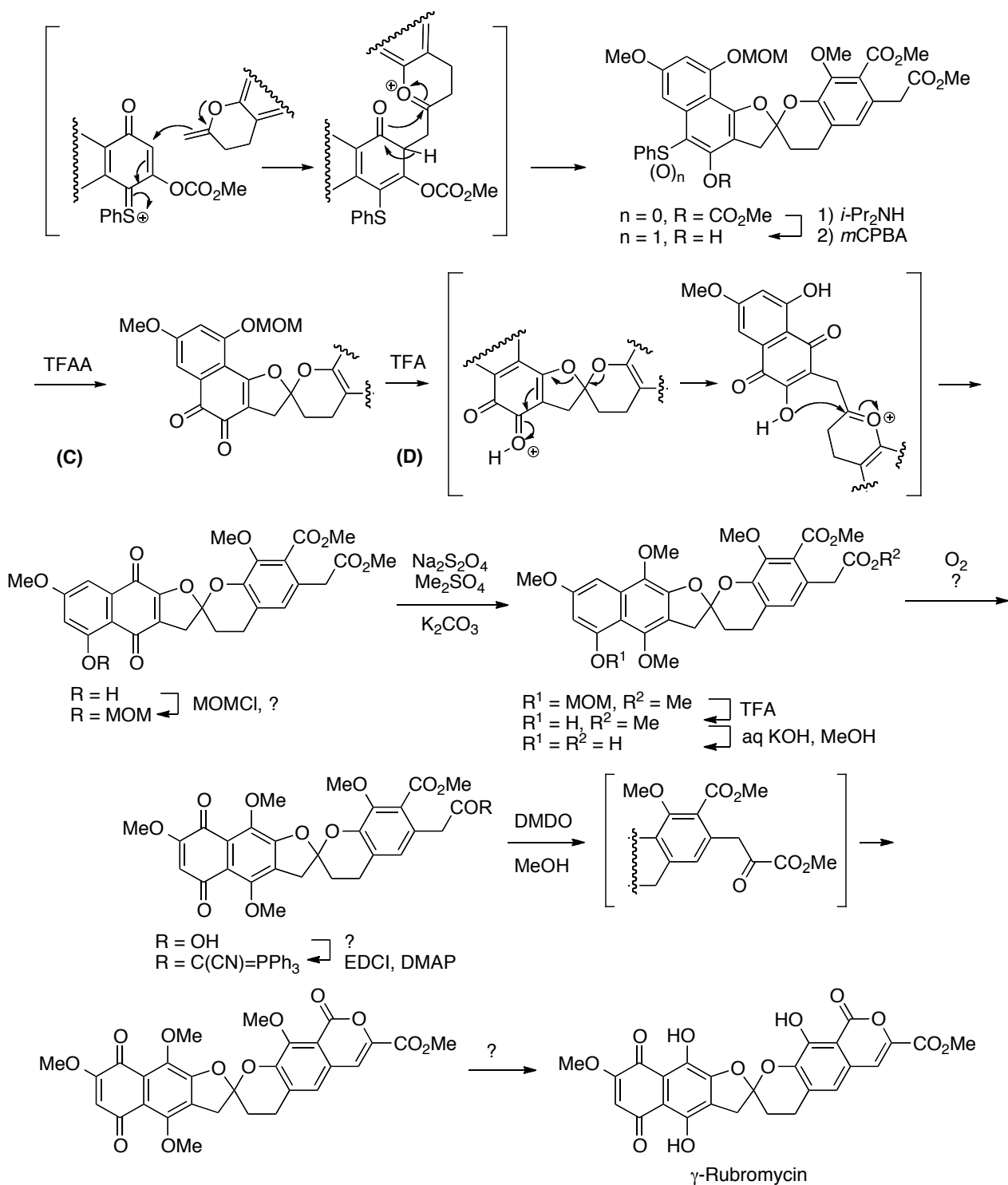


γ -Rubromycin (TKGP-210702)	Y. Kita, S. Akai ^{1), 2)}
	
Activity	Telomerase inhibitor (テロメラーゼ阻害剤)
Key Reactions	(A) thiocyanation, (B) carbon-carbon bond formation initiated by aromatic Pummerer-type reaction, (C) <i>o</i> -quinone formation initiated by aromatic Pummerer-type reaction, (D) rearrangement of <i>o</i> -quinone to <i>p</i> -quinone



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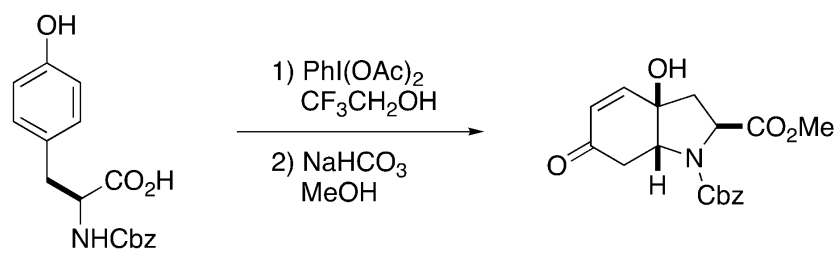


References:

- 1) S. Akai, K. Kakiguchi, Y. Nakamura, I. Kuriwaki, T. Dohi, S. Harada, O. Kubo, N. Morita, Y. Kita, *Angew. Chem. Int. Ed.*, **46**, 7458 (2007)
- 2) S. Akai, Y. Kita, *Top. Curr. Chem.*, **274**, 35 (2007)

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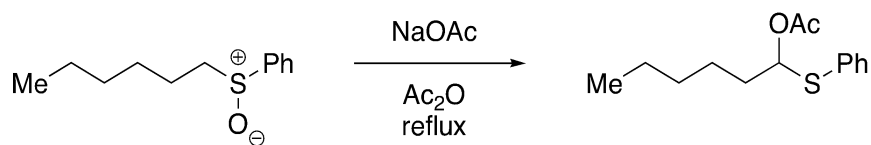


Wipf, P.; Li, W. *J. Org. Chem.* **1999**, *64*, 4576.

A: Oxidative lactonization of *N*-Cbz tyrosine. **B:** Intramolecular Michael addition to the cross-conjugated dienone.

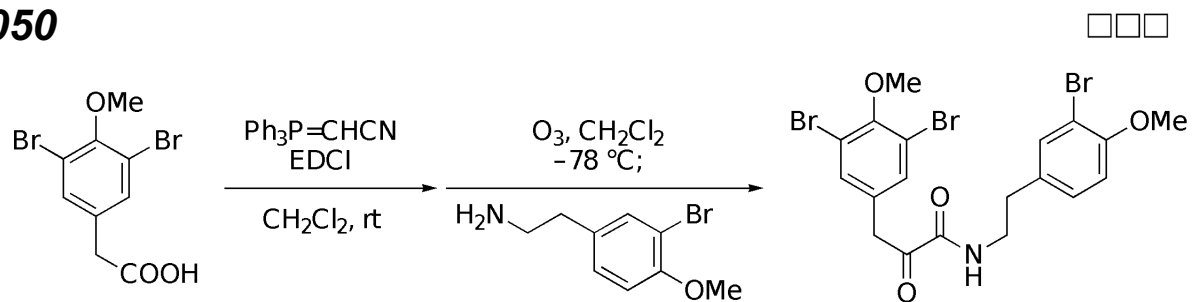
B037

□□□



Tanikaga, R.; Yabuki, Y.; Ono, N.; Kaji, A. *Tetrahedron Lett.* **1976**, 26, 2257.

Pummerer rearrangement. **A**: Acetylation of the sulfoxide. **B**: *syn*-Elimination of acetic acid. **C**: Addition of an acetate ion to the sulfenium ion.

C050

Wasserman, H. H.; Wang, J. *J. Org. Chem.* **1998**, *63*, 5581.

A: Activation of the carboxylic acid as an O-acylisourea. **B:** Acylation of the stabilized ylide. **C:** 1,3-Dipolar cycloaddition of O_3 to the ylide. **D:** Fragmentation to generate an acyl cyanide.