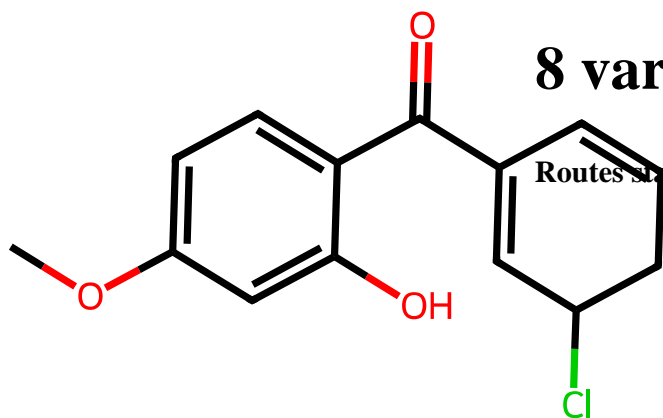
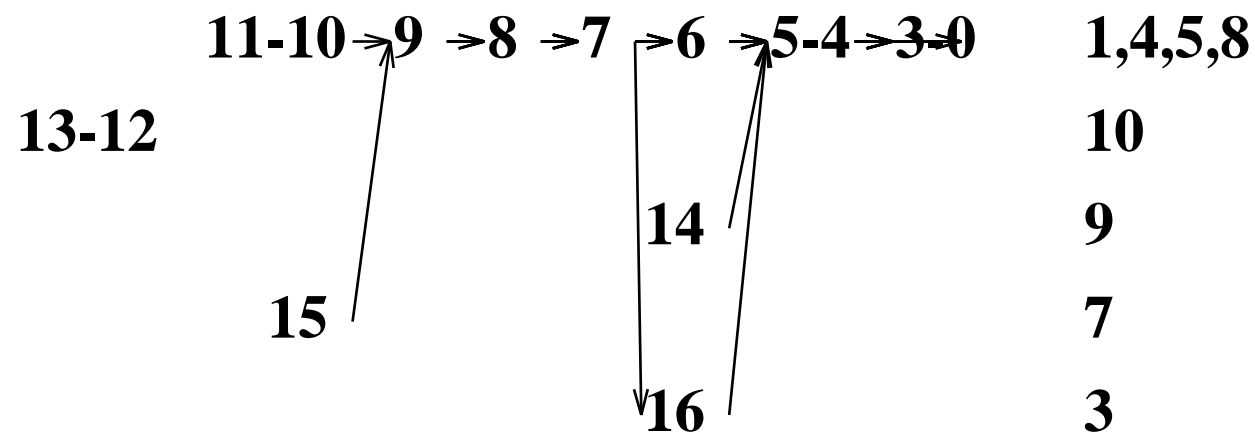


## Drawing summary

star04R2

reactions

route #id

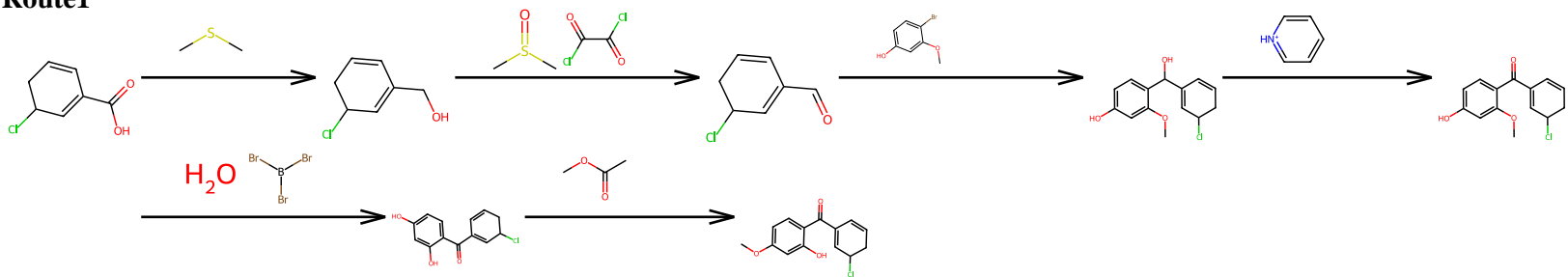


8 variations from 4 routes over 10 queries

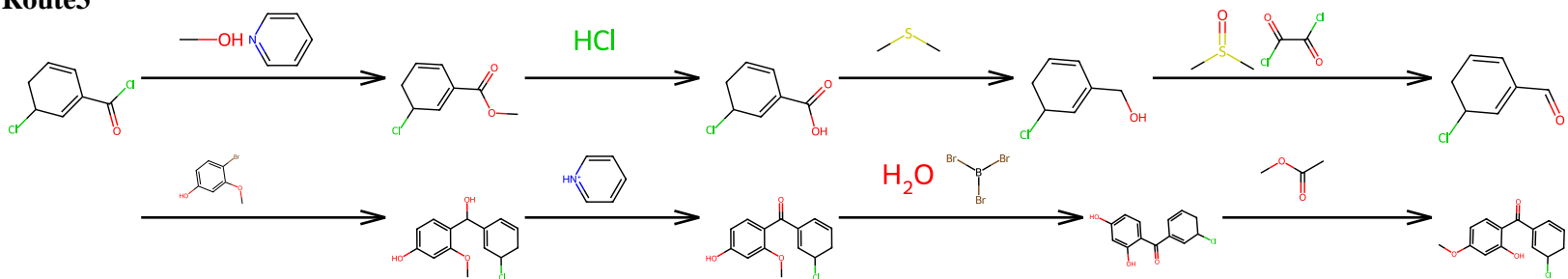
Routes start at similarity of 0.37(10),0.44(3),0.37(7),0.45(9),

COc1ccc(C(=O)C2=CC(Cl)CC=C2)c(O)c1

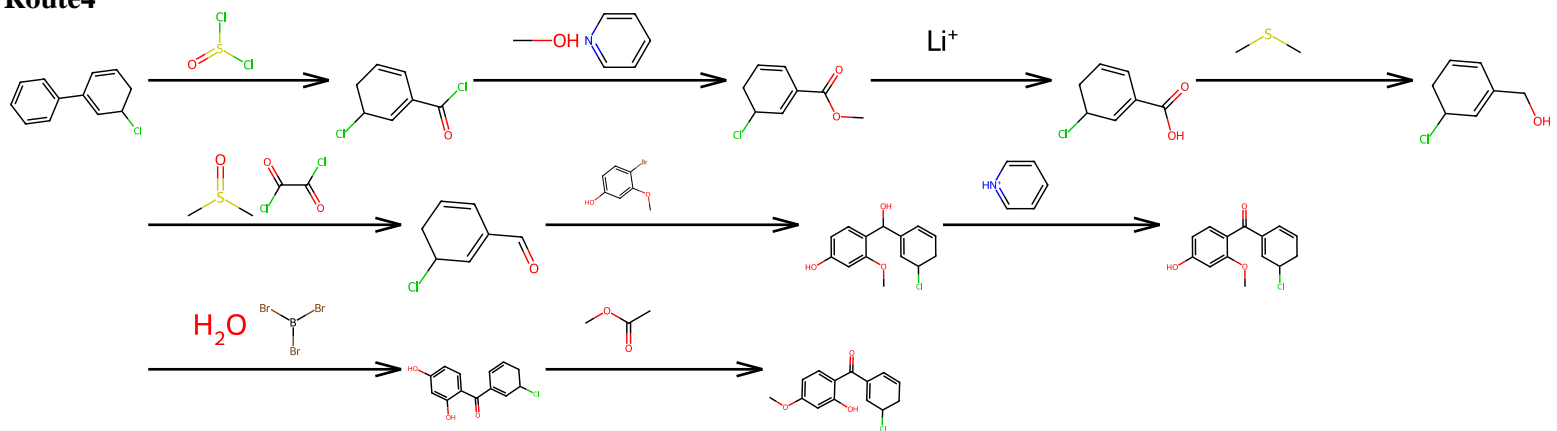
## Route1



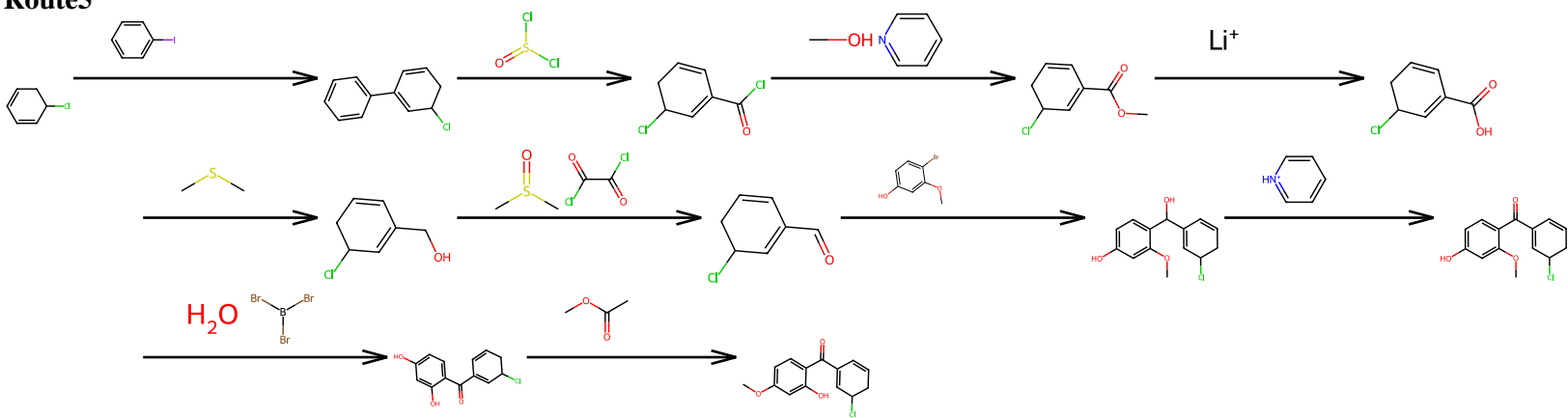
### Route3



## Route4



## Route5



[illegible]

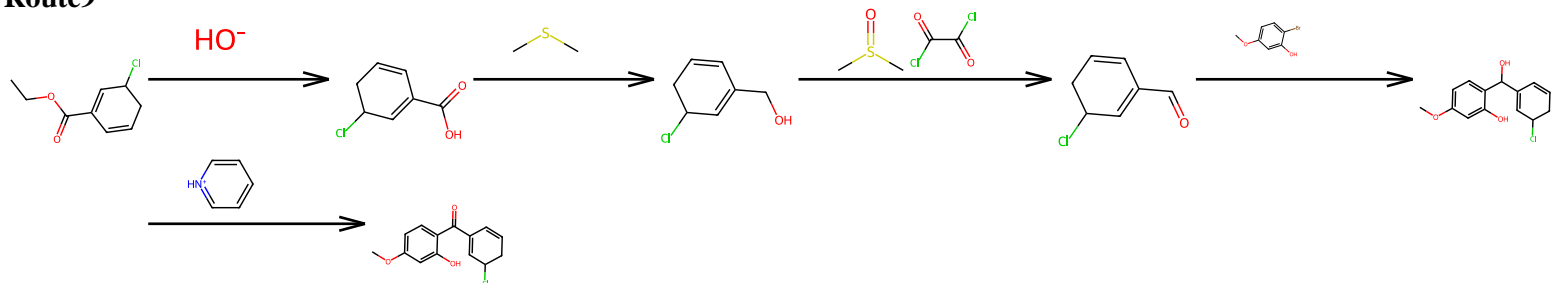
The reaction scheme illustrates the synthesis of 6-chloro-2-methoxy-3,4-dihydro-2H-chromene-3-carboxylic acid through three distinct pathways starting from 1-chloro-4-iodobenzene.

**Route 1 (Top):** 1-chloro-4-iodobenzene is converted to 1-chloro-4-phenylbenzene via a Suzuki coupling. This intermediate is then subjected to a Vilsmeier-Dowd reaction with  $\text{POCl}_3$  to form 1-chloro-4-(chloromethyl)benzene. Subsequent reaction with 4-pyridylmethanol yields 1-chloro-4-(4-pyridylmethoxy)benzene, which is then cyclized to 6-chloro-2-methoxy-3,4-dihydro-2H-chromene-3-carboxylic acid.

**Route 2 (Middle):** 1-chloro-4-iodobenzene is converted to 1-chloro-4-phenylbenzene via a Suzuki coupling. This intermediate is then subjected to a Vilsmeier-Dowd reaction with  $\text{POCl}_3$  to form 1-chloro-4-(chloromethyl)benzene. Subsequent reaction with 4-pyridylmethanol yields 1-chloro-4-(4-pyridylmethoxy)benzene, which is then cyclized to 6-chloro-2-methoxy-3,4-dihydro-2H-chromene-3-carboxylic acid.

**Route 3 (Bottom):** 1-chloro-4-iodobenzene is converted to 1-chloro-4-phenylbenzene via a Suzuki coupling. This intermediate is then subjected to a Vilsmeier-Dowd reaction with  $\text{POCl}_3$  to form 1-chloro-4-(chloromethyl)benzene. Subsequent reaction with 4-pyridylmethanol yields 1-chloro-4-(4-pyridylmethoxy)benzene, which is then cyclized to 6-chloro-2-methoxy-3,4-dihydro-2H-chromene-3-carboxylic acid.

## Route9



## Route10

