



## ***Four-Membered Ring Compounds***

- Organic Chemistry
- Analytical Chemistry
- Biochemistry
- Material Chemistry

***jk-scientific.com***

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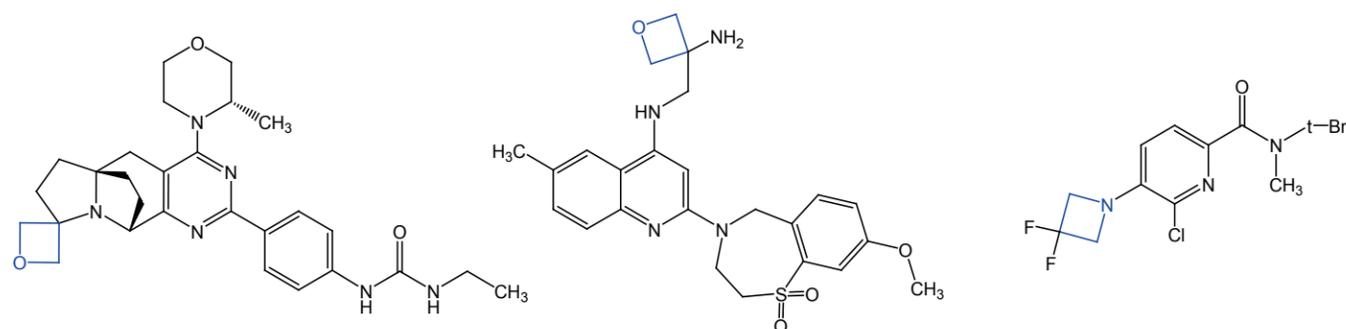
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# Four-Membered Ring Compounds

Highly reactive four-membered ring compounds include cyclobutane, oxetanein and azetidine. They are useful substrates in organic chemistry due to the functionalization of the different positions of the ring which can be used to design and preparation of biologically active compounds. For example, L-azetidine-2-carboxylic acid(237409) is an inhibitor of collagen synthesis as anti-angiogenic. The best-known examples of oxetane-containing drugs are the natural product paclitaxel (Taxol®) and its synthetic analog docetaxel. Joëlle Dubois and co-workers studied the effect of the deletion of the oxetane ring in analogs of docetaxel and found the analogs were less active than docetaxel in biological assays.

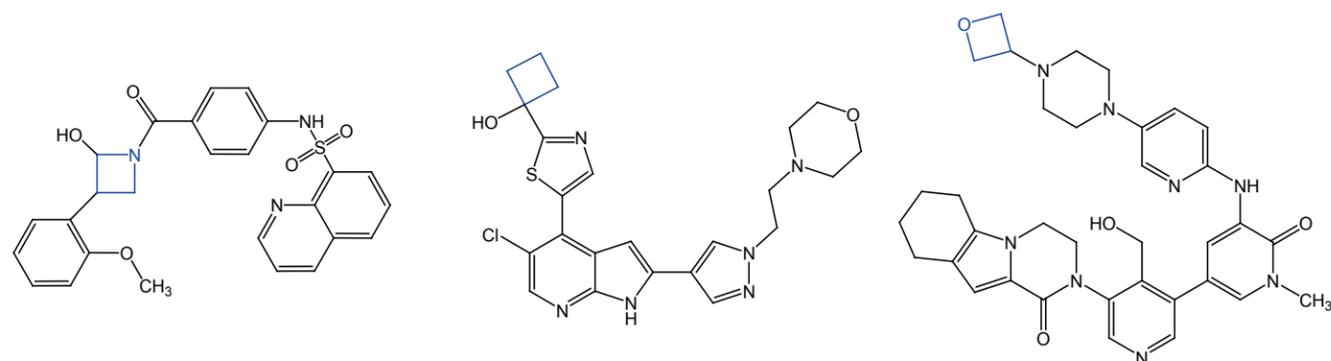
The four-membered ring compounds have become standard elements of the repertoire of chemists in drug discovery. This has resulted in an strong growth of the number of journals or patents across a wide range of applications.



mTOR Inhibitor  
Genentech  
J.Med.Chem., **2013**, 56(7), 3090-3101

anti-RSV  
Roche  
WO **2013**/020993

CB2 agonists  
Roche  
WO **2014**/086806



PKM2 modulators  
Agius Pharm.  
WO **2014**/074848

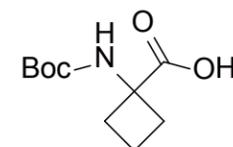
inhibitors of Aurora and KDR kinases  
Abbott  
WO **2011**/143459

BTK inhibitor  
Genentech, Inc.  
WO **2013**/067274

J&K can offer a variety of four-membered ring compounds in different package sizes from grams to kilograms. All these products have sufficient stock and are known for their excellent quality and competitive prices.

## ■ Cyclobutanes & Cyclobutenes

112926



120728-10-1  
Boc-1-amino-1-cyclobutane carboxylic acid, 97.5%

155198



4399-47-7  
Bromocyclobutane, 97%

435231



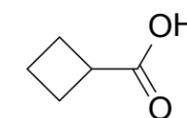
17247-58-4  
(Bromomethyl)cyclobutane, 98.5%

409609



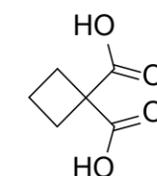
1120-57-6  
Chlorocyclobutane, 97%

181953



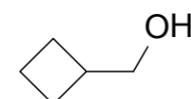
3721-95-7  
Cyclobutanecarboxylic acid, 98%

380229



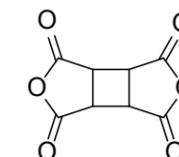
5445-51-2  
1,1-Cyclobutanedicarboxylic acid, 99%

233989



4415-82-1  
Cyclobutanemethanol, 99%

236897



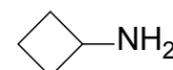
4415-87-6  
Cyclobutane-1,2,3,4-tetracarboxylic dianhydride, 98%

270250



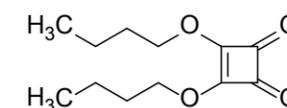
1191-95-3  
Cyclobutanone, 98%

144311



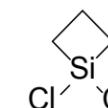
2516-34-9  
Cyclobutylamine, 98%

491805



2892-62-8  
3,4-Dibutoxy-3-cyclobutene-1,2-dione, 98%

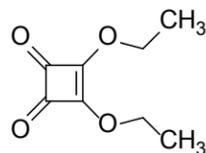
577369



2351-33-9  
1,1-Dichlorosilacyclobutane, 97%

# Four-Membered Ring Compounds

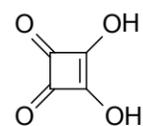
108051



5231-87-8

3,4-Diethoxy-3-cyclobutene-1,2-dione,  
98%

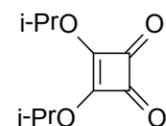
311369



2892-51-5

3,4-Dihydroxy-3-cyclobutene-1,2-dione,  
97%

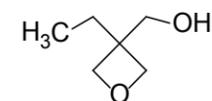
469816



61699-62-5

3,4-Diisopropoxy-3-cyclobutene-1,2-dione,  
98%

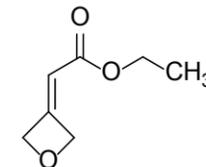
430627



3047-32-3

3-Ethyl-3-oxetanemethanol, 98%

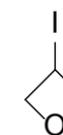
1238549



922500-91-2

Ethyl 2-(oxetan-3-ylidene)acetate, 95%

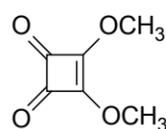
1172369



26272-85-5

3-Iodooxetane, 97%

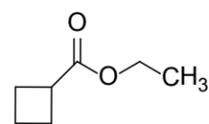
184022



5222-73-1

3,4-Dimethoxy-3-cyclobutene-1,2-dione,  
99%

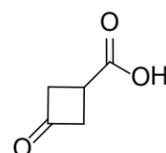
595836



14924-53-9

Ethyl cyclobutanecarboxylate, 98%

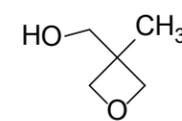
168489



23761-23-1

3-Oxo-cyclobutanecarboxylic acid,  
95%

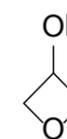
515501



3143-02-0

3-Methyl-3-oxetanemethanol, 98%

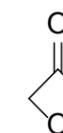
1014947



7748-36-9

3-Oxetanol, 95%

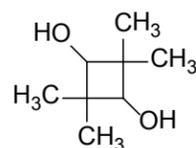
835702



6704-31-0

Oxetan-3-one, 95%

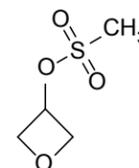
586230



3010-96-6

2,2,4,4-Tetramethyl-1,3-cyclobutanediol,  
99%, mixture of isomers

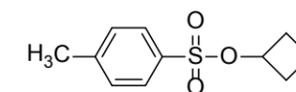
1588845



148430-81-3

Oxetan-3-yl methanesulfonate, 95%

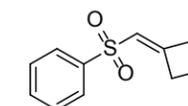
1217779



26272-83-3

3-Oxetanyl p-toluenesulfonate, 95%

1761589



1221819-46-0

3-((Phenylsulfonyl)methylene)oxetane,  
95%

## ■ Oxetanes

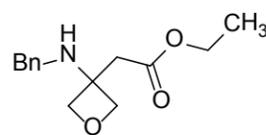
919056



39267-79-3

3-Bromooxetane, 97%

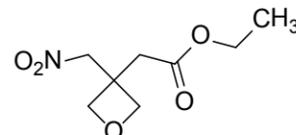
1606058



1207175-55-0

Ethyl 2-(3-(benzylamino)oxetan-3-yl)  
acetate, 95%

1586563



1045709-38-3

Ethyl 2-[3-(nitromethyl)oxetan-3-yl]  
acetate, 95%

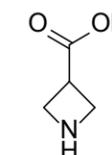
246240



503-29-7

Azetidine, 95%

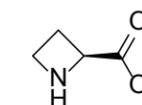
172318



36476-78-5

Azetidine-3-carboxylic acid, 98%

237409

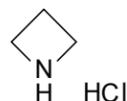


2133-34-8

L-Azetidine-2-carboxylic acid, 98%

# Four-Membered Ring Compounds

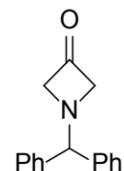
474517



36520-39-5

Azetidine hydrochloride, 99%

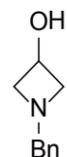
227296



40320-60-3

1-Benzhydryl-3-azetidinone, 97%

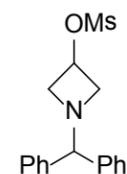
626360



54881-13-9

1-Benzyl-3-hydroxyazetidine, 97%

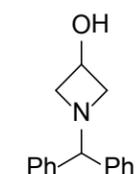
114985



33301-41-6

1-(Diphenylmethyl)-3-azetidiny methanesulfonate, 97%

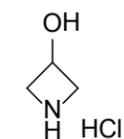
616566



18621-17-5

1-(Diphenylmethyl)-3-hydroxyazetidine, 98%

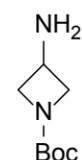
563718



18621-18-6

3-Hydroxyazetidine hydrochloride, 97%

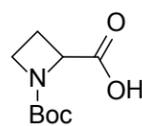
104410



193269-78-2

1-Boc-3-aminoazetidine, 95%

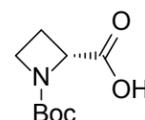
248583



159749-28-7

N-Boc-azetidine-2-carboxylic acid, 97%

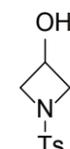
1350532



228857-58-7

1-Boc-D-azetidine-2-carboxylic acid, 97%

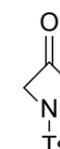
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154010-96-5

1-[(4-Methylphenyl)sulfonyl]-3-azetidinol, 95%

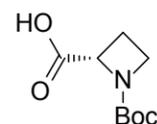
1018999



76543-27-6

1-Tosylazetidin-3-one, 95%

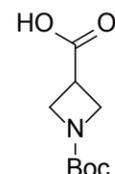
424248



51077-14-6

1-Boc-L-azetidine-2-carboxylic acid, 95%

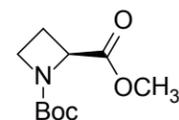
129471



142253-55-2

1-Boc-azetidine-3-carboxylic acid, 97%

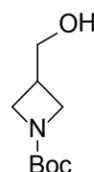
723421



107020-12-2

(S)-N-Boc-Azetidine-2-carboxylic acid methyl ester, 97%

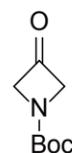
289040



142253-56-3

1-Boc-3-azetidinemethanol, 98%

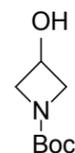
336714



398489-26-4

1-Boc-3-azetidinone, 98%

126016



141699-55-0

1-Boc-3-(hydroxy)azetidine, 97%