

The image features a blue-toned background with a collage of scientific and pharmaceutical elements. On the left, there are two glass Erlenmeyer flasks. In the center, a large number of various pills and capsules are scattered. On the right, two white pill bottles are shown with their caps removed. The background also includes faint white graphics of a bar chart, a pie chart, and a molecular structure. The Aladdin logo is positioned in the upper right quadrant.

aladdin[®]

Heterocyclic Building Blocks

A Handbook for Chemical Synthesis and Drug Discovery

Introduction

Welcome to the Aladdin Heterocyclic Building Blocks brochure! We offer a comprehensive range of Heterocyclic Building Blocks and detailed product information for scientists and researchers working in organic chemistry.

Heterocyclic building blocks are essential components in the synthesis of a wide variety of organic compounds characterized by the presence of at least one heteroatom (e.g., nitrogen, oxygen, or sulfur) in the ring structure, and thus exhibit chemical properties and biological activities that are different from those of other compounds, making heterocyclic building blocks play a crucial role in the development of all areas of organic chemistry, medicinal chemistry, and materials science. Understanding the structure and knowledge of various types of heterocyclic building blocks is essential for the design and synthesis of novel compounds with desired properties.

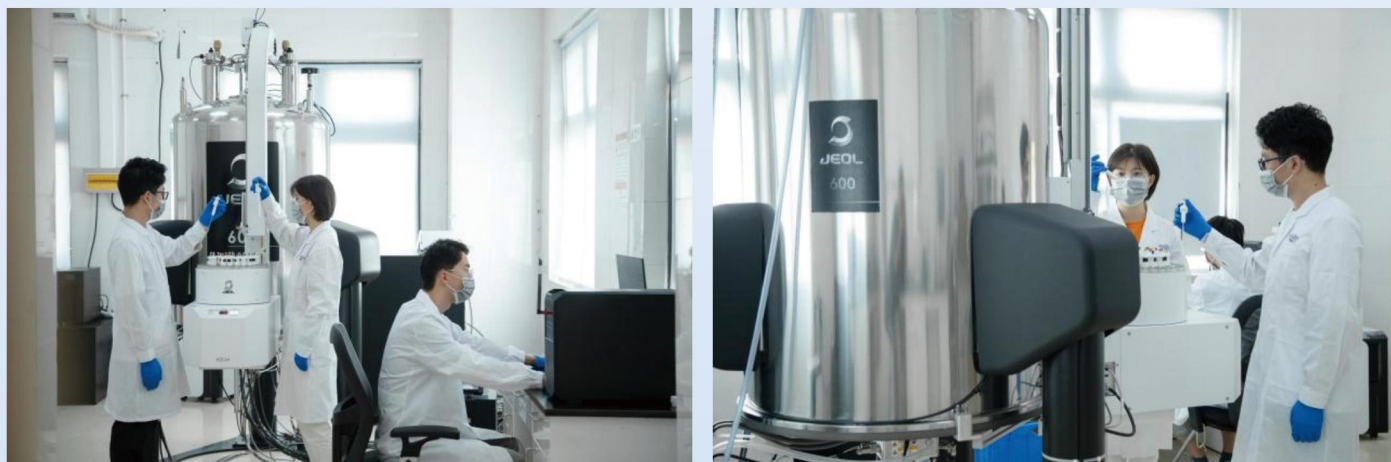
This handbook is a comprehensive reference guide that provides chemists with an overview of the most commonly used heterocyclic building blocks with related products. It covers a wide range of heterocyclic building blocks including, but not limited to, pyridines, pyrimidines, pyrazoles, furans, thiophenes, and more. Each section is dedicated to a specific heterocyclic building block and provides information of chemical structure and properties.

It is hoped that the Aladdin Handbook of Heterocyclic Building Blocks will become an invaluable resource for scientists and researchers involved in the design and synthesis of novel heterocyclic compounds. By providing a comprehensive overview of heterocyclic building blocks, we aim to stimulate creativity and accelerate the development of innovative solutions in drug discovery, materials science, and other fields.



Our Commitment to Quality

Aladdin has always attached great importance to the construction and management of the quality system. In order to ensure the quality of Building Blocks, the company continuously introduces advanced analytical instruments and production equipment, and the Aladdin Quality Center once again introduces 600MHz ECZ series NMR on the basis of the existing 400MHz NMR.



Aladdin's experts are using a 600MHz NMR spectrometer

The system is suitable for solution, solid, chemical, biological, material and other forms and types of samples, and can be configured according to different needs, both routine and research applications. When used to detect samples with complex molecular structure, it is easier to obtain accurate structure; for solid samples, it can be detected without being made into solution, solving the problem of detecting the structure of difficult-to-solve samples, making the product quality better, greatly improving the timeliness of the sample detection, and pushing the product detection to be more accurate, convenient and timeliness development.



Furan Ring

Furan rings are a class of five-membered aromatic heterocyclic compounds containing an oxygen heteroatom. They are often used as the core backbone of drug molecules, and by introducing different functional groups and substituents into the furan ring, they can modulate the properties and activity of the drug.



<p>M158541 930-27-8</p> <p>3-Methylfuran >98.0%(GC) (stabilized with HQ) 250mg/1g/5g/25g</p>	<p>M110932 534-22-5</p> <p>2-Methylfuran 98% 25mL/100mL/250mL/500mL/1L/5L</p>	<p>F119129 3238-40-2</p> <p>2,5-Furandicarboxylic acid 98% 1g/5g/25g/100g/500g</p>	<p>D134445 823-82-5</p> <p>2,5-Diformylfuran >98.0%(GC) 250mg/1g/5g</p>
<p>F156654 13529-17-4</p> <p>5-Formyl-2-furancarboxylic Acid >98.0% 250mg/1g/5g/25g</p>	<p>D166887 13031-04-4</p> <p>Dihydro-4,4-dimethyl-2,3-furandione 97% 250mg/1g/5g</p>	<p>D113405 625-86-5</p> <p>2,5-Dimethylfuran 99% 5mL/25mL/100mL/500mL</p>	<p>T273373 64001-06-5</p> <p>4-[(tetrahydro-2-furanyl)oxy]-1-butanol ≥95% 100mg/250mg/1g</p>

Imidazole Ring

Imidazole rings are a class of five-membered aromatic heterocyclic compounds containing two interpositioned nitrogen atoms. Imidazole rings are often used as the backbone of drugs or as important structural units in drug molecules due to their good electron transferability and easy functionalization.



<p>M104839 693-98-1</p> <p>2-Methylimidazole 98% 25g/100g/250g/500g/2.5kg/10kg</p>	<p>D109180 80-73-9</p> <p>1,3-Dimethyl-2-imidazolidinone GC-Headspace tested, ≥99.8%(GC) 25mL/100mL/500mL</p>	<p>E101506 174899-82-2</p> <p>1-Ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide 97% 1g/5g/25g/100g/500g</p>	<p>M109227 616-47-7</p> <p>1-Methylimidazole 99% 25mL/100mL/250mL/500mL/2.5L/5L</p>
<p>H121494 32477-35-3</p> <p>N-Heptafluorobutyrylimidazole For GC derivatization 1g/5g/25g</p>	<p>I121988 10111-08-7</p> <p>Imidazole-2-carboxaldehyde 98% 1g/5g/25g/100g</p>	<p>I133416 39236-46-9</p> <p>Imidazolidinyl Urea 98% 25g/100g/500g/1kg/2.5kg</p>	<p>B110177 79917-90-1</p> <p>1-Butyl-3-methylimidazolium chloride 97% 5g/10g/25g/50g/100g/500g/2.5kg</p>

Pyrazine Ring

Pyrazine rings are a class of six-membered heterocyclic compounds containing two nitrogen heteroatoms. Pyrazine ring compounds play an important role in drug development, and the antipsychotic drug Chlorpromazine and the antiallergic drug Loratadine both contain pyrazine rings.



<p>B188248 916791-07-6</p> <p>2-Bromo-6-chloropyrazine 96% 250mg/1g/5g</p>	<p>T176593 486460-21-3</p> <p>3-(trifluoromethyl)-5H,6H,7H,8H-[1,2,4]triazolo[4,3-a]pyrazine 97% 1g</p>	<p>D121623 21943-15-7</p> <p>3,5-Dibromo-2-hydroxypyrazine 97% 1g/5g</p>	<p>A100996 22047-25-2</p> <p>2-Acetylpyrazine 99% 1g/5g/25g/100g/500g</p>
<p>M158369 109-08-0</p> <p>2-Methylpyrazine >98.0%(GC) 25g/100g/500g</p>	<p>A111242 5049-61-6</p> <p>Aminopyrazine 99% 1g/5g/25g/50g/100g/500g</p>	<p>T111263 1124-11-4</p> <p>2,3,5,6-Tetramethylpyrazine 98% 5g/25g/100g/500g</p>	<p>P163010 122-05-4</p> <p>Pyrazine-2,5-dicarboxylic acid ≥97% 250mg/1g/5g/25g/100g</p>

Pyridine Ring

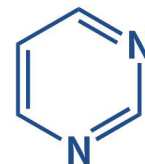
Pyridine rings are a class of six-membered heterocyclic compounds containing a nitrogen heteroatom. Pyridine rings are one of the most widely used heterocycles in the field of drug design and have shown promising biological activities in anti-inflammatory, anti-cancer and anti-infective applications.



<p>D109207 1122-58-3</p> <p>4-Dimethylaminopyridine 99% 25g/100g/500g/2.5kg</p>	<p>V105595 100-43-6</p> <p>4-Vinylpyridine 96%, contains 80-120 ppm hydroquinone as stabilizer 25mL/100mL/500mL</p>	<p>P106580 100-55-0</p> <p>3-Pyridinemethanol 98% 5g/25g/100g/500g</p>	<p>M111102 3811-73-2</p> <p>2-Mercaptopyridine N-oxide sodium salt 40% in H2O 100mL/500mL/2.5L</p>
<p>M132847 23007-85-4</p> <p>1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridineHydrochloride ≥98% 25mg/100mg/500mg/1g</p>	<p>P160629 2767-91-1</p> <p>4-(4-Pyridyl)morpholine 98% 1g/5g/25g</p>	<p>D108977 366-18-7</p> <p>2,2'-Bipyridyl AR,99.0% 5g/25g/100g/500g/2.5kg</p>	<p>D100574 2127-03-9</p> <p>2,2'-Dithiodipyridine 98% 5g/25g/100g/500g</p>

Pyrimidine Ring

Pyrimidines, also known as 1,3-diazabenzene, are six-membered heterocyclic compounds containing two interpositioned nitrogen heteroatoms. Pyrimidine rings are the dominant structures in new drug design, and pyrimidine ring active compounds act across a wide range of targets.



<p>T106704 141-90-2</p> <p>2-Thiouracil 98% 25g/100g/250g/500g/2.5kg</p>	<p>A151322 3977-29-5</p> <p>2-Amino-4-hydroxy-6-methylpyrimidine >98.0%(HPLC)(T) 5g/25g/50g/100g/500g</p>	<p>B109680 51-20-7</p> <p>5-Bromouracil 99% 5g/25g/100g/500g</p>	<p>U102087 66-22-8</p> <p>Uracil 99% 25g/100g/250g/500g</p>
<p>C132651 155-10-2</p> <p>4-Amino-2-chloro-5-fluoropyrimidine 97% 250mg/1g/5g/25g/100g</p>	<p>T123280 1004-38-2</p> <p>2,4,6-Triaminopyrimidine ≥98.0% 5g/10g/25g/50g/100g/500g</p>	<p>C104336 71-30-7</p> <p>Cytosine 98% 25g/50g/100g/500g/1kg</p>	<p>T129928 738-70-5</p> <p>Trimethoprim ≥99% 5g/25g/100g/250g/500g</p>

Thiophene Ring

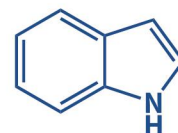
Thiophene rings are an important class of sulfur-containing heterocyclic compounds that can be used as analogs of pyrroles and furans and are widely used as molecular building blocks in drug synthesis. Thiophene rings can be used as bioisoelectronic exclusions of benzene rings, for example in the nonsteroidal anti-inflammatory drug Clonoxicam (thiophene analog of Piroxicam).



<p>E105649 126213-50-1</p> <p>3,4-Ethylenedioxythiophene 99% 5g/25g/100g/500g</p>	<p>D111072 1207-12-1</p> <p>4,6-Dimethyldibenzothiophene 97% 250mg/5g/10g/25g</p>	<p>T107485 110-01-0</p> <p>Tetrahydrothiophene 99% 25mL/100mL/500mL/2.5L</p>	<p>T104976 326-91-0</p> <p>2-Thenoyltrifluoroacetone 98% 1g/5g/25g/100g</p>
<p>T162832 13781-67-4</p> <p>3-Thiopheneethanol >98.0%(GC) 1g/5g/25g/100g</p>	<p>B153038 267-65-2</p> <p>Benzo[1,2-b:4,5-b']dithiophene 98% 250mg/1g/5g</p>	<p>W132626 129946-88-9</p> <p>5-(Trifluoromethyl)dibenzothiophene u trifluoromethanesulfonate 97% 1g/5g/25g</p>	<p>T107116 4282-31-9</p> <p>2,5-Thiophenedicarboxylic acid 98% 5g/25g/100g/500g</p>

Indole Ring

Indole rings are a class of compounds with a bicyclic structure in which a five-membered pyrrole ring is juxtaposed with a six-membered benzene ring. Indole ring compounds have a wide range of biological activities and have a place in drugs in therapeutic areas such as antitumor, anti-inflammatory and antibacterial.



<p>X108836 7240-90-6</p> <p>5-Bromo-4-chloro-3-indolyl β-D-galactopyranoside 98% 50mg/200mg/250mg/1g/5g</p>	<p>T101089 41532-84-7</p> <p>1,1,2-Trimethylbenz[e]indole 98% 5g/25g/100g</p>	<p>T101070 1640-39-7</p> <p>2,3,3-Trimethylindolenine 98% 5mL/25mL/100mL/500mL</p>	<p>I184250 392-12-1</p> <p>Indole-3-pyruvic acid 95% 100mg/250mg/1g/5g</p>
<p>H157347 16111-07-2</p> <p>1-(2-Hydroxyethyl)-3,3-dimethylindolino-6'-nitrobenzopyrrolospiran >93.0%(HPLC)(T) 200mg/1g/5g</p>	<p>I101072 87-51-4</p> <p>3-Indoleacetic acid 98% 5g/25g/100g/250g/500g</p>	<p>C124835 25369-33-9</p> <p>7-Chloro-2-oxindole $\geq 97.0\%$ 1g/5g/10g/25g</p>	<p>T103563 74470-85-2</p> <p>2,3,3-Trimethyl-3H-benzo[g]indole 98% 1g/5g/10g</p>

Quinoline Ring

Quinoline rings, also known as benzopyridines, consist of two dense aromatic six-membered rings, a benzene and a pyridine ring. A well-known derivative of the quinoline rings is quinine, a drug for malaria.



<p>A131410 148757-94-2</p> <p>AQC $\geq 95\%$ 0mg/50mg/250mg/1g</p>	<p>M105654 5263-87-6</p> <p>6-methoxyquinoline 96% 5g/25g/100g</p>	<p>T108003 10500-57-9</p> <p>5,6,7,8-Tetrahydroquinoline 98% 5mL/10mL/25mL/50mL/100mL/500mL/1L/2.5L/5L</p>	<p>A105027 578-66-5</p> <p>8-Aminoquinoline 98% 1g/5g/25g/100g</p>
<p>H167592 1571-30-8</p> <p>8-Hydroxy-2-quinolinecarboxylic acid 98% 200mg/1g/5g</p>	<p>K120012 492-27-3</p> <p>Kynurenic acid 97% 250mg/1g/5g/25g</p>	<p>A136838 70125-16-5</p> <p>2-Amino-8-quinolinol $\geq 98.0\%$ (GC) 1g/5g</p>	<p>M106749 491-35-0</p> <p>4-Methylquinoline 98% 5g/25g/100g/500g</p>



aladdin[®]

aladdin[®]
Aladdin Scientific Corporation

Official website: www.aladdinsci.com

Phone: +1 (833) 552-7181

Email for purchasing: sales@aladdinsci.com

Email for customer service: custserv@aladdinsci.com

Email for technical support: support@aladdinsci.com

Submit a ticket: <https://www.aladdinsci.com/customersupport>

Address: 14078 Meridian Parkway, Riverside, CA. 92518 USA

