NO Synthase
Nitric oxide synthases; NOS

Nitric oxide synthases (NOSs) are a family of enzymes catalyzing the production of nitric oxide (NO) from L-arginine. NO synthases catalyze the oxidation of L-arginine to NO and L-citrulline. Mammals contain three NOS isoforms: neuronal NOS (nNOS), inducible NOS (iNOS), and endothelial NOS (eNOS). NO produced from these different NOS isoforms is involved in a wide range of physiologic functions in the nervous, immune, and cardiovascular systems. Unregulated NO production can lead to pathologic conditions such as stroke, inflammation, and hypertension. Therefore, the control of NOS activity by isoform selective NOS inhibitors has great potential for therapeutic treatments of NO-related diseases.
NO Synthase Inhibitors & Modulators

1400W Dihydrochloride  
Cat. No.: HY-18731

Bioactivity: 1400W dihydrochloride is a potent and selective inhibitor of human inducible NO synthase with $K_i$ values of 7 nM.

Purity: 99.66%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

3',4'-Dihydroxyflavonol (DiOHF)  
Cat. No.: HY-111804

Bioactivity: 3',4'-Dihydroxyflavonol (DiOHF) is an effective antioxidant, which reduces superoxide and improves nitric oxide (NO) function in diabetic rat mesenteric arteries [1].

Purity: >98%  
Clinical Data: No Development Reported  
Size: 5 mg

6-Biopterin (L-Biopterin)  
Cat. No.: HY-102015

Bioactivity: 6-Biopterin (L-Biopterin), a pterin derivative, is a NO synthase cofactor.

Purity: 98.02%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Agmatine sulfate  
Cat. No.: HY-101238

Bioactivity: Agmatine sulfate exerts modulatory action at multiple molecular targets, such as neurotransmitter systems, ion channels and nitric oxide synthesis. It is an endogenous agonist at imidazoline receptor and a NO synthase inhibitor.

Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

Asymmetric dimethylarginine  
Cat. No.: HY-113216

Bioactivity: Asymmetric dimethylarginine is an endogenous inhibitor of nitric oxide synthase (NOS), and functions as a marker of endothelial dysfunction in a number of pathological states.

Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in Water, 5 mg, 10 mg, 25 mg

AVE-3085  
Cat. No.: HY-19504

Bioactivity: AVE-3085 is a potent endothelial nitric oxide synthase enhancer, used for cardiovascular disease treatment.

Purity: 99.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 20 mg

Bendazol  
Cat. No.: HY-82141

Bioactivity: Bendazol is a hypotensive drug which can also enhance NO synthase activity in renal glomeruli and collecting tubules.

Purity: 99.45%  
Clinical Data: Launched  
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

Chondroitin sulfate (Chondroitin polysulfate)  
Cat. No.: HY-82162

Bioactivity: Chondroitin sulfate, one of five classes of glycosaminoglycans, has been widely used in the treatment of osteoarthritis. Chondroitin sulfate reduces inflammation mediators and the apoptotic process and is able to reduce protein production of inflammatory cytokines, iNOS and MMPs.

Purity: 95.0%  
Clinical Data: Launched  
Size: 250 mg, 1 g

Ginsenoside C-K (Ginsenoside K; Ginsenoside compound K)  
Cat. No.: HY-N0904

Bioactivity: Ginsenoside C-K, a bacterial metabolite of G-Rb1, exhibits anti-inflammatory effects by reducing iNOS and COX-2. Ginsenoside C-K exhibits an inhibition against the activity of CYP2C9 and CYP2A6 in human liver microsomes with IC$_{50}$ of 32.0±3.6 μM and 63.6±4.2 μM, respectively.

Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

Ginsenoside Rb3 (Gypenoside IV)  
Cat. No.: HY-N0041

Bioactivity: Ginsenoside Rb3 is extracted from steamed Panax notoginseng. Ginsenoside Rb3 exhibits inhibitory effect on TNFa-induced NF-κB transcriptional activity with an IC$_{50}$ of 8.2 μM in 293T cell lines. Ginsenoside Rb3 also inhibits the induction of COX-2 and iNOS mRNA.

Purity: 99.0%  
Clinical Data: No Development Reported  
Size: 5 mg, 10 mg

NO Synthase Inhibitors & Modulators

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Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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Bioactivity: 3’,4’-Dihydroxyflavonol (DiOHF) is an effective antioxidant, which reduces superoxide and improves nitric oxide (NO) function in diabetic rat mesenteric arteries [1].

Purity: >98%  
Clinical Data: No Development Reported  
Size: 5 mg

6-Biopterin (L-Biopterin)  
Cat. No.: HY-102015

Bioactivity: 6-Biopterin (L-Biopterin), a pterin derivative, is a NO synthase cofactor.

Purity: 98.02%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

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Cat. No.: HY-101238

Bioactivity: Agmatine sulfate exerts modulatory action at multiple molecular targets, such as neurotransmitter systems, ion channels and nitric oxide synthesis. It is an endogenous agonist at imidazoline receptor and a NO synthase inhibitor.

Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

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Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in Water, 5 mg, 10 mg, 25 mg

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Purity: 99.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 20 mg

Bendazol  
Cat. No.: HY-82141

Bioactivity: Bendazol is a hypotensive drug which can also enhance NO synthase activity in renal glomeruli and collecting tubules.

Purity: 99.45%  
Clinical Data: Launched  
Size: 10mM x 1mL in DMSO, 100 mg, 500 mg, 1 g

Chondroitin sulfate (Chondroitin polysulfate)  
Cat. No.: HY-82162

Bioactivity: Chondroitin sulfate, one of five classes of glycosaminoglycans, has been widely used in the treatment of osteoarthritis. Chondroitin sulfate reduces inflammation mediators and the apoptotic process and is able to reduce protein production of inflammatory cytokines, iNOS and MMPs.

Purity: 95.0%  
Clinical Data: Launched  
Size: 250 mg, 1 g

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Cat. No.: HY-N0904

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Purity: 98.0%  
Clinical Data: No Development Reported  
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

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Cat. No.: HY-N0041

Bioactivity: Ginsenoside Rb3 is extracted from steamed Panax notoginseng. Ginsenoside Rb3 exhibits inhibitory effect on TNFa-induced NF-κB transcriptional activity with an IC$_{50}$ of 8.2 μM in 293T cell lines. Ginsenoside Rb3 also inhibits the induction of COX-2 and iNOS mRNA.

Purity: 99.0%  
Clinical Data: No Development Reported  
Size: 5 mg, 10 mg

Tel: 609-228-6898  Fax: 609-228-5909  Email: sales@MedChemExpress.com
GW274150  
**Cat. No.: HY-12119**

**Bioactivity:** GW274150 is a novel arginine-competitive, NADPH-dependent iNOS inhibitor that has been identified from a series of acetamide amino acids that have a high selectivity for iNOS vs both eNOS (> 260-fold) and nNOS (> 219-fold) and high bioavailability (> 90%) after oral administration. Target:

**Purity:** 99.84%

**Clinical Data:** Phase 2

**Size:** 10 mM x 1 mL in Water, 1 mg, 5 mg, 10 mg, 50 mg

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Kuwanon A  
**Cat. No.: HY-N2300**

**Bioactivity:** Kuwanon A is a flavone derivative isolated from the root barks of the mulberry tree (Morus alba L.) that inhibits nitric oxide production with an IC_{50} of 10.5 μM.

**Purity:** 96.30%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in Water, 2 mg, 5 mg, 10 mg, 25 mg

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L-Arginine  
**Cat. No.: HY-N0455**

**Bioactivity:** L-Arginine is the nitrogen donor for synthesis of nitric oxide, a potent vasodilator that is deficient during times of sickle cell crisis. Target: Others L-Arginine is an α-amino acid. It was first isolated in 1886. The L-form is one of the 20 most common natural amino acids. At the level of molecular...

**Purity:** 98.0%

**Clinical Data:** Phase 4

**Size:** 10 mM x 1 mL in Water, 1 g, 5 g, 100 g, 500 g

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L-Arginine hydrochloride  
**Cat. No.: HY-ND455A**

**Bioactivity:** L-Arginine is the nitrogen donor for synthesis of nitric oxide, a potent vasodilator that is deficient during times of sickle cell crisis. Target: Others Arginine is an α-amino acid. It was first isolated in 1886. The L-form is one of the 20 most common natural amino acids. At the level of molecular...

**Purity:** 98.0%

**Clinical Data:** Phase 4

**Size:** 10 mM x 1 mL in Water, 1 g, 5 g

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L-Canavanine sulfate  
**Cat. No.: HY-B1581A**

**Bioactivity:** L-Canavanine sulfate is a selective inhibitor of inducible NO synthase.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in Water, 50 mg, 100 mg

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L-NILO dihydrochloride  
**Cat. No.: HY-100986**

**Bioactivity:** L-NIO dihydrochloride is a potent, non-selective and NADPH-dependent nitric oxide synthase (NOS) inhibitor, with K_{i} values of 1.7, 3.9, 3.9 μM for neuronal (nNOS), endothelial (eNOS), and inducible (iNOS), respectively.

**Purity:** 95.0%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in Water, 5 mg, 10 mg

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L-NMMA acetate  
**Cat. No.: HY-18732A**

**Bioactivity:** L-NMMA acetate is a nitric oxide synthase inhibitor of all NOS isoforms including NOS1, NOS2, and NOS3. The K_{i} values for nNOS (rat), eNOS (human), and iNOS (mouse) are approximately 0.18, 0.4, and 6 μM, respectively.

**Purity:** 98.0%

**Clinical Data:** No Development Reported

**Size:** 10 mM x 1 mL in Water, 10 mg, 25 mg, 50 mg, 100 mg

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Piceatannol 3′-O-glucoside  
**Cat. No.: HY-N2237**

**Bioactivity:** Piceatannol 3′-O-glucoside, an active component of Rhubarb, activates endothelial nitric oxide (eNO) synthase through inhibition of arginase activity with an IC_{50} of 11.22 μM and 11.06 μM against arginase I and arginase II, respectively.

**Purity:** 99.0%

**Clinical Data:** No Development Reported

**Size:** 5 mg

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<table>
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<tr>
<th><strong>Prim-O-glucosylcimifugin</strong></th>
<th><strong>Cat. No.: HY-N0635</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Bioactivity:</strong> Prim-O-glucosylcimifugin exerts anti-inflammatory effects through the inhibition of iNOS and COX-2 expression by through regulating JAK2/STAT3 signaling.</td>
<td></td>
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<tr>
<td><strong>Purity:</strong> 99.76%</td>
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<td><strong>Clinical Data:</strong> No Development Reported</td>
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<td><strong>Size:</strong> 5 mg, 10 mg</td>
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<tr>
<th><strong>S-MTC</strong></th>
<th><strong>Cat. No.: HY-U00432</strong></th>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> S-MTC is a selective type I nitric oxide synthase (NOS) inhibitor.</td>
<td></td>
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<tr>
<td><strong>Purity:</strong> &gt;98%</td>
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<tr>
<td><strong>Clinical Data:</strong> No Development Reported</td>
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<tr>
<td><strong>Size:</strong> 5 mg, 10 mg, 25 mg</td>
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<tr>
<th><strong>Syzalterin</strong></th>
<th><strong>Cat. No.: HY-N1187</strong></th>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> Syzalterin is an inhibitor of NO production with an $IC_{50}$ of 1.87 μg/mL.</td>
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<tr>
<td><strong>Purity:</strong> &gt;98%</td>
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<tr>
<td><strong>Clinical Data:</strong> No Development Reported</td>
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<tr>
<td><strong>Size:</strong> 5 mg</td>
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<thead>
<tr>
<th><strong>Tetrahydrobiopterin (Sapropterin)</strong></th>
<th><strong>Cat. No.: HY-107383</strong></th>
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<tbody>
<tr>
<td><strong>Bioactivity:</strong> Tetrahydrobiopterin is a cofactor of the aromatic amino acid hydroxylases enzymes and also acts as an essential cofactor for all nitric oxide synthase (NOS) isoforms.</td>
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<tr>
<td><strong>Purity:</strong> 98.63%</td>
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<td><strong>Clinical Data:</strong> Launched</td>
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<tr>
<td><strong>Size:</strong> 10 mM x 1 mL in DMSO, 5 mg, 10 mg, 50 mg</td>
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