Serotonin Transporter
5-HT; SERT; SLC6A4

Serotonin Transporters (SERTs) are integral membrane proteins that transport serotonin from synaptic spaces into presynaptic neurons. SERTs function by reuptaking serotonin in the synaptic cleft, effectively terminating the function of serotonin and halting neuronal transmission. Serotonin reuptake is a critical process to prevent overstimulation of nerves.

Serotonin transporter (SERT) regulates extracellular levels of serotonin (5-hydroxytryptamine, 5HT) in the brain by transporting 5HT into neurons and glial cells. The human SERT (hSERT) is the primary target for drugs used in the treatment of emotional disorders, including depression. hSERT belongs to the solute carrier 6 family that includes a bacterial leucine transporter (LeuT), for which a high resolution crystal structure has become available.
## Serotonin Transporter Inhibitors & Antagonists

### Amitifadine hydrochloride
(Amitifadine hydrochloride; DOV-21947 hydrochloride; EB-1010 hydrochloride)

**Cat. No.: HY-18332A**

Amitifadine hydrochloride is a serotonin-norepinephrine-dopamine reuptake inhibitor (SNDRD), with IC₅₀s of 12, 23, 96 nM for serotonin, norepinephrine and dopamine in HEK 293 cells, respectively.

- **Purity:** 99.92%
- **Clinical Data:** Phase 3
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

### Azaphen dihydrochloride monohydrate
(Azaphen dihydrochloride monohydrate; Pipofezine dihydrochloride monohydrate; ...)

**Cat. No.: HY-A0022A**

Pipofezine(Azaphen or Azaphen) is a potent inhibitor of the reuptake of serotonin.

- **Purity:** 99.60%
- **Clinical Data:** Launched
- **Size:** 100 mg, 500 mg

### Centanafadine hydrochloride
(EB-1020 hydrochloride)

**Cat. No.: HY-16736A**

Centanafadine (hydrochloride) is dual norepinephrine (NE)/dopamine (DA) transporter inhibitor, also inhibits serotonin transporter, with IC₅₀s of 6 nM, 38 nM and 83 nM for human NE, DA and serotonin transporter, respectively.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 100 mg, 500 mg

### Cinchonidine
(α-Quinidine)

**Cat. No.: HY-N0173**

Cinchonidine (α-Quinidine) is a cinchona alkaloid found in Cinchona officinalis and Gongronema latifolium. A building block used in asymmetric synthesis in organic chemistry.

- **Purity:** >98.0%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 100 mg

### Citalopram hydrobromide
((±)-Citalopram hydrobromide; Lu 10-171)

**Cat. No.: HY-81287**

Citalopram hydrobromide is an antidepressant drug of the selective serotonin reuptake inhibitor (SSRI) class. It has US FDA approval to treat major depression.

- **Purity:** >99.0%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

### Clomipramine D3 hydrochloride

(Clomipramine D3 hydrochloride; Clomipramine D3 hydrochloride; Clomipramine D3 hydrochloride; DOV-21947 hydrochloride; EB-1010 hydrochloride)

**Cat. No.: HY-18332A**

Clomipramine D3 hydrochloride is the deuterium labeled Clomipramine. Clomipramine is a serotonin transporter (SERT), norepinephrine transporter (NET) and dopamine transporter (DAT) blocker with Kᵢ of 0.14, 54 and 3 nM, respectively.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg

### Clomipramine hydrochloride

**Cat. No.: HY-18332A**

Clomipramine hydrochloride is a serotonin transporter (SERT), norepinephrine transporter (NET) and dopamine transporter (DAT) blocker with Kᵢ of 0.14, 54 and 3 nM, respectively.

- **Purity:** 99.72%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 100 mg, 500 mg
Dapoxetine hydrochloride (LY-210448 hydrochloride)  
Cat. No.: HY-B0304A

Dapoxetine hydrochloride is a short-acting novel selective serotonin reuptake inhibitor (SSRI). Target: SSRI  
Dapoxetine hydrochloride is a short-acting novel selective serotonin reuptake inhibitor marketed for the treatment of premature ejaculation in men.  
Purity: 99.93%  
Clinical Data: Launched  
Size: 10 mM × 1 mL, 50 mg, 100 mg

Dasotraline (SEP 225289)  
Cat. No.: HY-12850

Dasotraline is a triple reuptake inhibitor that blocks dopamine, norepinephrine, and serotonin transporters with IC₅₀ values of 4, 6, and 11 nM, respectively.  
Purity: >98%  
Clinical Data: No Development Reported  
Size: 5 mg, 10 mg, 25 mg, 50 mg

Deschloroclozapine  
Cat. No.: HY-42110

Deschloroclozapine is a dual dopamine and serotonin receptor antagonist with Kᵢ of 200, 2500, 420, 39, 84, 40 nM for dopamine D₁, D₂, D₄, and serotonin S₂A, S₂C, S₃, respectively.  
Purity: 99.79%  
Clinical Data: No Development Reported  
Size: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

Desipramine hydrochloride  
Cat. No.: HY-B1272

Desipramine hydrochloride is an inhibitor of norepinephrine transporter (NET) and serotonin transporter (SERT) and dopamine transporter (DAT) with Kᵢ of 4, 61 and 78,720 nM, respectively.  
Purity: 99.68%  
Clinical Data: Launched  
Size: 10 mM × 1 mL, 100 mg, 500 mg

Desvenlafaxine  
Cat. No.: HY-B0602

Desvenlafaxine is a serotonin (5-HT) and norepinephrine (NE) reuptake inhibitor with Kᵢ of 40.2 nM and 558.4 nM, respectively.  
Purity: >98.0%  
Clinical Data: Launched  
Size: 10 mM × 1 mL, 5 mg, 10 mg

Desvenlafaxine succinate hydrate  
Cat. No.: HY-B0602A

Desvenlafaxine succinate hydrate is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI).  
Purity: 99.76%  
Clinical Data: Launched  
Size: 10 mM × 1 mL, 10 mg, 50 mg

DSP-1053  
Cat. No.: HY-111419

DSP-1053 is a potent Serotonin Transporter (SERT) (Kᵢ=1.02 nM) inhibitor with partial S-HT₁A receptor (Kᵢ=5.05 nM) agonistic activity.  
Purity: >98%  
Clinical Data: No Development Reported  
Size: 100 mg, 250 mg, 500 mg

Duloxetine  
Cat. No.: HY-B0161

Duloxetine is a serotonin-norepinephrine reuptake inhibitor with a Kᵢ of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD).  
Purity: >98%  
Clinical Data: Launched  
Size: 10 mg, 50 mg
### Duloxetine D3 hydrochloride (LY248686 D3 hydrochloride)
**Cat. No.:** HY-80161AS

Duloxetine D3 hydrochloride ((S)-Duloxetine D3 hydrochloride) is a deuterium labeled Duloxetine hydrochloride.

<table>
<thead>
<tr>
<th>Purity:</th>
<th>&gt;98%</th>
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<tbody>
<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
</tr>
<tr>
<td>Size:</td>
<td>1 mg, 5 mg</td>
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</table>

### Duloxetine hydrochloride (LY-248686 hydrochloride)
**Cat. No.:** HY-80161A

Duloxetine hydrochloride ((S)-Duloxetine hydrochloride) is a serotonin-norepinephrine reuptake inhibitor (SNRI) with a $K_i$ of 4.6 nM, used for treatment of major depressive disorder and generalized anxiety disorder (GAD).

<table>
<thead>
<tr>
<th>Purity:</th>
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<tr>
<td>Clinical Data:</td>
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<tr>
<td>Size:</td>
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</tr>
</tbody>
</table>

### Eplivanserin mixture (SR-46349 (mixture))
**Cat. No.:** HY-10792A

Eplivanserin mixture is a selective serotonin reuptake inhibitor and a 5-HT$_2A$ receptor antagonist, extracted from patent WO 2005/002578 A1.

<table>
<thead>
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<tr>
<td>Clinical Data:</td>
<td>No Development Reported</td>
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<tr>
<td>Size:</td>
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</table>

### Escitalopram ((S)-Citalopram; S-(+)-Citalopram)
**Cat. No.:** HY-14258

Escitalopram is a selective serotonin reuptake inhibitor (SSRI) with $K_i$ of 0.89 nM. Target: SSRIs

<table>
<thead>
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<tbody>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
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<tr>
<td>Size:</td>
<td>10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

### Escitalopram oxalate ((S)-(+)Citalopram oxalate)
**Cat. No.:** HY-14258A

Escitalopram oxalate ((S)-(+)Citalopram oxalate) is a selective serotonin reuptake inhibitor (SSRI) with $K_i$ of 0.89 nM.

<table>
<thead>
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<th>Purity:</th>
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<tbody>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
</tr>
<tr>
<td>Size:</td>
<td>10 mM × 1 mL, 10 mg, 50 mg, 100 mg</td>
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### Fluoxetine (LY-110140 free base)
**Cat. No.:** HY-80102

Fluoxetine (LY-110140 free base) is a selective serotonin reuptake inhibitor (SSRI) class used for antidepressant research.

<table>
<thead>
<tr>
<th>Purity:</th>
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</thead>
<tbody>
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<td>Clinical Data:</td>
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<td>Size:</td>
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### Fluoxetine hydrochloride (LY-110140)
**Cat. No.:** HY-80102A

Fluoxetine hydrochloride is an antidepressant and a selective serotonin reuptake inhibitor.

<table>
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<td>Size:</td>
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</tbody>
</table>

### Fluvoxamine (DU-23000)
**Cat. No.:** HY-80103

Fluvoxamine (DU-23000) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.

<table>
<thead>
<tr>
<th>Purity:</th>
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</thead>
<tbody>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
</tr>
<tr>
<td>Size:</td>
<td>10 mg, 50 mg, 100 mg</td>
</tr>
</tbody>
</table>

### Fluvoxamine maleate (DU-23000 (maleate))
**Cat. No.:** HY-80103A

Fluvoxamine (maleate) (DU-23000 (maleate)) is an antidepressant which functions pharmacologically as a selective serotonin reuptake inhibitor.

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<td>Size:</td>
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</tr>
</tbody>
</table>

### Imipramine hydrochloride
**Cat. No.:** HY-B1490

Imipramine hydrochloride inhibits serotonin transporter with an $IC_{50}$ value of 32 nM in vitro.

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Clinical Data:</td>
<td>Launched</td>
</tr>
<tr>
<td>Size:</td>
<td>10 mM × 1 mL, 100 mg</td>
</tr>
</tbody>
</table>

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Tel: 609-228-6898  Fax: 609-228-5909  Email: sales@MedChemExpress.com
### Milnacipran

**Cat. No.: HY-80168**

Milnacipran is a serotonin-norepinephrine reuptake inhibitor (SNRI) used in the clinical treatment of fibromyalgia.

- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 10 mg, 50 mg, 100 mg

![Milnacipran](image)

### Milnacipran (1S-cis) hydrochloride

(Levomilnacipran hydrochloride; F-2695 hydrochloride)** Cat. No.: HY-80168B**

Milnacipran (1S-cis) hydrochloride is a serotonin-norepinephrine reuptake inhibitor (SNRI), used in the clinical treatment of fibromyalgia.

- **Purity:** 99.94%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

![Milnacipran (1S-cis) hydrochloride](image)

### Milnacipran hydrochloride

**Cat. No.: HY-80168A**

Milnacipran hydrochloride is a serotonin-norepinephrine reuptake inhibitor (SNRI) used in the clinical treatment of fibromyalgia.

- **Purity:** 99.87%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

![Milnacipran hydrochloride](image)

### Nitroxazepine

(CIBA 2330Go) **Cat. No.: HY-101684**

Nitroxazepine is a tricyclic antidepressant (TCA) for the treatment of depression. Nitroxazepine acts as a serotonin-norepinephrine reuptake inhibitor.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg, 10 mg, 20 mg

![Nitroxazepine](image)

### Paroxetine hydrochloride

(BRL29060 hydrochloride; BRL29060A) **Cat. No.: HY-B0492**

Paroxetine hydrochloride is a potent selective serotonin-reuptake inhibitor, commonly prescribed as an antidepressant and has GRK2 inhibitory ability with $IC_{50}$ of 14μM.

- **Purity:** >99.0%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 100 mg, 500 mg

![Paroxetine hydrochloride](image)

### Paroxetine hydrochloride hemihydrate

(BRL29060 hydrochloride hemihydrate; BRL29060A hemihydrate) **Cat. No.: HY-B0492A**

Paroxetine hydrochloride hemihydrate is a potent selective serotonin-reuptake inhibitor, commonly prescribed as an antidepressant and has GRK2 inhibitory ability with $IC_{50}$ of 14μM.

- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 100 mg, 500 mg

![Paroxetine hydrochloride hemihydrate](image)

### SPD-473 citrate

**Cat. No.: HY-101612**

SPD-473 citrate is a serotonin/dopamine/norepinephrine reuptake inhibitor.

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 1 mg, 5 mg, 10 mg, 20 mg

![SPD-473 citrate](image)

### Sertraline hydrochloride

**Cat. No.: HY-B0176A**

Sertraline hydrochloride is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class.

- **Purity:** 99.90%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

![Sertraline hydrochloride](image)

### Venlafaxine

(Wy 45030) **Cat. No.: HY-80196**

Venlafaxine is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class. Target: SNRI. Venlafaxine is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class.

- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 10 mg, 50 mg

![Venlafaxine](image)

### Venlafaxine hydrochloride

(Wy 45030 hydrochloride) **Cat. No.: HY-80196A**

Venlafaxine hydrochloride is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI) class.

- **Purity:** 99.87%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg

![Venlafaxine hydrochloride](image)

www.MedChemExpress.com
<table>
<thead>
<tr>
<th>Compound</th>
<th>Cat. No.</th>
<th>Description</th>
<th>Purity</th>
<th>Clinical Data</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vilazodone</td>
<td>HY-14262</td>
<td>Vilazodone (EMD 68843, SB659746A) is a combined serotonin specific reuptake inhibitor (SSRI) and 5-HT1A receptor partial agonist currently under clinical evaluation for the treatment of major depression.</td>
<td>99.91%</td>
<td>Launched</td>
<td>10 mM × 1 mL, 10 mg, 50 mg</td>
</tr>
<tr>
<td>Vilazodone D8</td>
<td>HY-14261S</td>
<td>Vilazodone D8 is the deuterium labeled vilazodone, which is a combined serotonin specific reuptake inhibitor (SSRI) and 5-HT1A receptor partial agonist.</td>
<td>&gt;98%</td>
<td>No Development Reported</td>
<td>1 mg, 5 mg</td>
</tr>
<tr>
<td>Vilazodone Hydrochloride</td>
<td>HY-14261</td>
<td>Vilazodone Hydrochloride (EMD 68843 Hydrochloride) is a serotonin transporter (5ER) inhibitor and 5-HT1A receptor partial agonist.</td>
<td>99.95%</td>
<td>Launched</td>
<td>10 mM × 1 mL, 10 mg, 50 mg</td>
</tr>
<tr>
<td>Vortioxetine</td>
<td>HY-15414</td>
<td>Vortioxetine is an inhibitor of 5-HT1A, 5-HT1B, 5-HT7 receptor and SERT, with Ki values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.</td>
<td>98.81%</td>
<td>Launched</td>
<td>10 mM × 1 mL, 5 mg, 10 mg, 50 mg</td>
</tr>
<tr>
<td>Vortioxetine D8</td>
<td>HY-15414S</td>
<td>Vortioxetine D8 is a deuterium labeled vortioxetine. Vortioxetine is an inhibitor of 5-HT1A, 5-HT1B, 5-HT7 receptor and SERT, with Ki values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.</td>
<td>&gt;98%</td>
<td>No Development Reported</td>
<td>1 mg, 5 mg</td>
</tr>
<tr>
<td>Vortioxetine hydrobromide</td>
<td>HY-15414A</td>
<td>Vortioxetine hydrobromide is a multimodal serotonergic agent, inhibits 5-HT1A, 5-HT1B, 5-HT7, receptor and SERT with Ki values of 15 nM, 33 nM, 3.7 nM, 19 nM and 1.6 nM, respectively.</td>
<td>99.94%</td>
<td>Launched</td>
<td>10 mM × 1 mL, 5 mg, 10 mg, 50 mg</td>
</tr>
<tr>
<td>WF-516</td>
<td>HY-19417A</td>
<td>WF-516 is an inhibitor of 5-HT reuptake, and an antagonist of 5-HT1A and 5-HT2A receptors, with Ki of 5 nM and 40 nM for 5-HT1A receptor and 5-HT2A receptor in humans, respectively, and has potent antidepressant activity.</td>
<td>&gt;98%</td>
<td>No Development Reported</td>
<td>1 mg, 5 mg, 10 mg, 20 mg</td>
</tr>
</tbody>
</table>

Tel: 609-228-6898  Fax: 609-228-5909  Email: sales@MedChemExpress.com