Monoamine Transporter

Monoamine transporters (MATs) are protein structures that function as integral plasma-membrane transporters to regulate concentrations of extracellular monoamine neurotransmitters. Three major classes of MATs (SERT, DAT, NET) are responsible for the reuptake of their associated amine neurotransmitters (serotonin, dopamine, norepinephrine). MATs are located just outside the synaptic cleft (peri-synaptically), transporting monoamine transmitter overflow from the synaptic cleft back to the cytoplasm of the pre-synaptic neuron. MAT regulation generally occurs through phosphorylation and posttranslational modification. Due to their significance in neuronal signaling, MATs are commonly associated with drugs used to treat mental disorders as well as recreational drugs. Compounds targeting MATs range from medications such as the wide variety of tricyclic antidepressants, selective serotonin reuptake inhibitors to stimulant medications and amphetamine.
Monoamine Transporter Inhibitors & Modulators

**(+)-Tetrabenazine D6**  
Cat. No.: HY-B0590S1  

*Bioactivity:* (+)-Tetrabenazine D6 is the deuterium labeled (+)-Tetrabenazine. (+)-Tetrabenazine is a reversible inhibitor of vesicular monoamine transporter 2 (VMAT-2).

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

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**NBI-98782**  
((+)-DTBZ; (+)-α-Dihydrotetrabenazine; (+)-α-DHTBZ)  
Cat. No.: HY-15793  

*Bioactivity:* NBI-98782(alpha-dihydrotetrabenazine) is a vesicular monoamine transporter (VMAT2) inhibitor with an Ki value of 0.97 nM.

*Purity:* 99.80%  
*Clinical Data:* No Development Reported  
*Size:* 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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**Radafaxine hydrochloride**  
(GW-353162A; BW-306U)  
Cat. No.: HY-17590  

*Bioactivity:* Radafaxine Hcl(BW-306U; GW-353162A) is a potent metabolite of bupropion; selective for inhibiting the reuptake of norepinephrine over dopamine; DAT (dopamine transporter) and NET(norepinephrine transporter) transporters inhibitor, and nAChR family modulator.

*Purity:* 99.47%  
*Clinical Data:* No Development Reported  
*Size:* 10mM x 1mL in DMSO, 5 mg, 10 mg

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**Reserpine hydrochloride**  
Cat. No.: HY-N0480A  

*Bioactivity:* Reserpine hydrochloride is an inhibitor of the vesicular monoamine transporter 2 (VMAT2).

*Purity:* 99.84%  
*Clinical Data:* Launched  
*Size:* 10mM x 1mL in DMSO, 100 mg

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**Reserpine**  
Cat. No.: HY-N0480  

*Bioactivity:* Reserpine is an inhibitor of the vesicular monoamine transporter 2 (VMAT2).

*Purity:* 99.83%  
*Clinical Data:* Launched  
*Size:* 10mM x 1mL in DMSO, 100 mg

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**Tetrabenazine**  
(Ro 1-9569)  
Cat. No.: HY-B0590  

*Bioactivity:* Tetrabenazine is a VMAT-inhibitor used for treatment of hyperkinetic movement disorder. Target: Others tetrabenazine (TBZ), a monoamine-depleting and a dopamine-receptor-blocking drug. TBZ is an effective and safe drug for the treatment of a variety of hyperkinetic movement disorders. In contrast to...

*Purity:* 99.10%  
*Clinical Data:* Launched  
*Size:* 10mM x 1mL in DMSO, 10 mg, 50 mg, 100 mg, 200 mg

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**Tetrabenazine ((+)-)**  
((+)-Tetrabenazine; (+)-TBZ; (3R,11bR)-TBZ; (3R,11bR)-Tetrabenazine)  
Cat. No.: HY-B0590B  

*Bioactivity:* Tetrabenazine ((+)-) is a reversible inhibitor of vesicular monoamine transporter 2 (VMAT-2), inhibits transport by VMAT2 with 10-fold greater potency than transport by VMAT1. Target: VMAT-2 In vitro: Tetrabenazine ((+)-) inhibit the activity of the transporter but appear to interact differently with the...

*Purity:* 99.81%  
*Clinical Data:* No Development Reported  
*Size:* 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

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**Tetrabenazine D6**  
(Ro 1-9569 D6)  
Cat. No.: HY-B0590S  

*Bioactivity:* Tetrabenazine D6 is the deuterium labeled Tetrabenazine, which is a VMAT-inhibitor used for treatment of hyperkinetic movement disorder.

*Purity:* 99.0%  
*Clinical Data:* No Development Reported  
*Size:* 1 mg, 5 mg, 10 mg

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**Tetrabenazine Racemate**  
(Ro 1-9569 Racemate)  
Cat. No.: HY-B0590A  

*Bioactivity:* Tetrabenazine (Racemate) is a selective and reversible inhibitor of vesicular monoamine transporter-2 (VMAT-2).

*Purity:* 98.0%  
*Clinical Data:* No Development Reported  
*Size:* 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

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**Trans (2,3)-Dihydrotetrabenazine**  
((2R,3R,11bR)-rel-Dihydrotetrabenazine; ...)  
Cat. No.: HY-15793A  

*Bioactivity:* Trans (2,3)-Dihydrotetrabenazine, a metabolite of Tetrabenazine, shows remarkable inhibition activity on vesicular monoamine transporter (VMAT2) [1].

*Purity:* >98%  
*Clinical Data:* Phase 3  
*Size:* 5 mg, 10 mg, 50 mg, 100 mg

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<table>
<thead>
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<th>Bioactivity:</th>
<th>Vanilpyruvic acid is a catecholamine metabolite and precursor to vanillactic acid.</th>
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<tr>
<td>Size:</td>
<td>10mM x 1mL in DMSO, 10 mg</td>
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