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# Produktinformation

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- Laborgeräte & Service

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## Lieferung & Zahlungsart

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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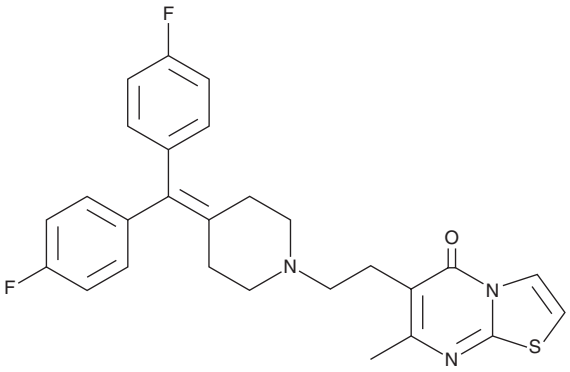
# PRODUCT INFORMATION

## Ritanserin

*Item No. 21374*



| | |
|---|---|
| **CAS Registry No.:** | 87051-43-2 |
| **Formal Name:** | 6-[2-[4-[*bis*(4-fluorophenyl)methylene]-1-piperidinyl]ethyl]-7-methyl-5H-thiazolo[3,2-a]pyrimidin-5-one |
| **Synonym:** | R-55-667 |
| **MF:** | $C_{27}H_{25}F_2N_3OS$ |
| **FW:** | 477.6 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 229, 324 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥2 years |

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Ritanserin is supplied as a crystalline solid. A stock solution may be made by dissolving the ritanserin in the solvent of choice. Ritanserin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ritanserin in these solvents is approximately 2.5, 12.5, and 30 mg/ml, respectively.

### Description

Ritanserin is a selective antagonist of the serotonin (5-HT) receptor subtype, 5-$HT_{2A}$.[1] In a radioligand binding assay, ritanserin exhibits high selectivity for 5-$HT_{2A}$ over 5-$HT_1$ receptors ($IC_{50}$s = 0.9 nM and >1,000 nM, respectively).[2] It also demonstrates relatively low affinity for histamine $H_1$, dopamine $D_2$, $\alpha_1$-adrenergic, and $\alpha_2$-adrenergic receptors (39-, 77-, 107-, and 166-fold lower relative to 5-$HT_{2A}$, respectively). Ritanserin (2.5 mg/kg) is long-acting, occupying >70% of 5-$HT_{2A}$ sites up to 48 hours following subcutaneous administration to rats and guinea pigs. *In vivo*, ritanserin (10 mg/kg) blocks 5-hydroxy tryptophan-induced head twitches in rats.[3]

### References


1. Janssen, P.A. Pharmacology of potent and selective $S_2$-serotonergic antagonists. *J. Cardiovasc. Pharmacol.* **7(Suppl 7)**, S2-11 (1985).
2. Leysen, J.E., Gommeren, W., Van Gompel, P., *et al.* Receptor-binding properties *in vitro* and *in vivo* of ritanserin: A very potent and long acting serotonin-$S_2$ antagonist. *Mol. Pharmacol.* **27(6)**, 600-611 (1985).
3. Watanabe, Y., Usui, H., Kobayashi, S., *et al.* Syntheses and 5-$HT_2$ antagonist activity of bicyclic 1,2,4-triazol-3(2*H*)-one and 1,3,5-triazine-2,4(3*H*)-dione derivatives. *J. Med. Chem.* **35(1)**, 189-194 (1992).





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