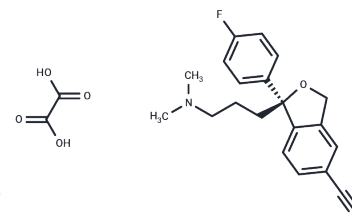


## Escitalopram Oxalate

### Chemical Properties

|                   |                                                          |
|-------------------|----------------------------------------------------------|
| CAS No. :         | 219861-08-2                                              |
| Formula:          | C22H23FN2O5                                              |
| Molecular Weight: | 414.43                                                   |
| Appearance:       | no data available                                        |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year |



### Biological Description

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description   | Escitalopram Oxalate ((S)-(+)-Citalopram oxalate) is a selective serotonin (5-HT) reuptake inhibitor (SSRI) with Ki of 0.89 nM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Targets(IC50) | Others, 5-HT Receptor, Serotonin Transporter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| In vitro      | Escitalopram, the S-enantiomer of citalopram, belongs to a class of antidepressant agents known as selective serotonin-reuptake inhibitors (SSRIs). It is used to treat the depression associated with mood disorders. It is also used on occasion in the treatment of body dysmorphic disorder and anxiety. The antidepressant, antiobsessive-compulsive, and antibulimic actions of escitalopram are presumed to be linked to its inhibition of CNS neuronal uptake of serotonin. In vitro studies show that escitalopram is a potent and selective inhibitor of neuronal serotonin reuptake and has only very weak effects on norepinephrine and dopamine neuronal reuptake. Escitalopram has no significant affinity for adrenergic (alpha1, alpha2, beta), cholinergic, GABA, dopaminergic, histaminergic, serotonergic (5HT1A, 5HT1B, 5HT2), or benzodiazepine receptors; antagonism of such receptors has been hypothesized to be associated with various anticholinergic, sedative, and cardiovascular effects for other psychotropic drugs. The chronic administration of escitalopram is found to downregulate brain norepinephrine receptors, as has been observed with other drugs effective in the treatment of major depressive disorder. Escitalopram does not inhibit monoamine oxidase. |

### Solubility Information

|            |                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------|
| Solubility | H2O: 20.7 mg/mL (50 mM),<br>DMSO: 41.4 mg/mL (100 mM),<br>( $< 1$ mg/mL refers to the product slightly soluble or insoluble) |
|------------|------------------------------------------------------------------------------------------------------------------------------|

## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.413 mL  | 12.0648 mL | 24.1295 mL |
| 5 mM  | 0.4826 mL | 2.413 mL   | 4.8259 mL  |
| 10 mM | 0.2413 mL | 1.2065 mL  | 2.413 mL   |
| 50 mM | 0.0483 mL | 0.2413 mL  | 0.4826 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

Mnie-Filali O, et al. Encephale, 2007, 33(6), 965-972.

Zhang P, et al. J Med Chem, 2010, 53(16), 6112-6121.

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