A selective and reversible inhibitor of monoamine oxidase B (MAO-B, IC\(_{50}\)=98 nM with greater than 100-fold selectivity over MAO-A.\(^1\) Displays anticonvulsant activity\(^2\) and protects against kainate-induced seizures and hippocampal neurodegeneration in rat models\(^3\). Reduces overactive glutamatergic signaling via use-dependent sodium channel blockade.\(^4\) A novel therapeutic for Parkinson’s disease with multiple modes of action.\(^5\) Effective as an add-on to dopamine agonist therapy in early Parkinson’s.\(^6\)

1) Strolin Benedetti et al. (1994), The anticonvulsant FCE 26743 is a selective and short-acting MAO-B inhibitor devoid of inducing properties towards cytochrome P450-dependent testosterone hydroxylation in mice and rats; J. Pharm. Pharmacol., 46 814
3) Maj et al. (1998), PNU-151774E protects against kainate-induced status epilepticus and hippocampal lesions in the rat; Eur. J. Pharmacol., 59 27
4) Gardoni et al. (2018), Safinamide Modulates Striatal glutamatergic Signaling in a Rat Model of Levodopa-Induced Dyskinesia; J. Pharmacol. Exp. Ther., 367 442
5) Caccia et al. (2006), Safinamide: from molecular targets to a new anti-Parkinson drug; Neurology, 67(7 Suppl. 2) S18
6) Schapira et al. (2013), Long-term efficacy and safety of safinamide as add-on therapy in early Parkinson’s disease; Eur. J. Neurol., 20 271

**PHYSICAL DATA**

Molecular Weight: 302.34
Molecular Formula: C\(_{17}\)H\(_{19}\)FN\(_2\)O\(_2\)
Purity: 98% by HPLC
NMR: (Conforms)
Solubility: DMSO (up to 50 mg/ml)
Physical Description: White solid
Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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