

Certificate Of Analysis

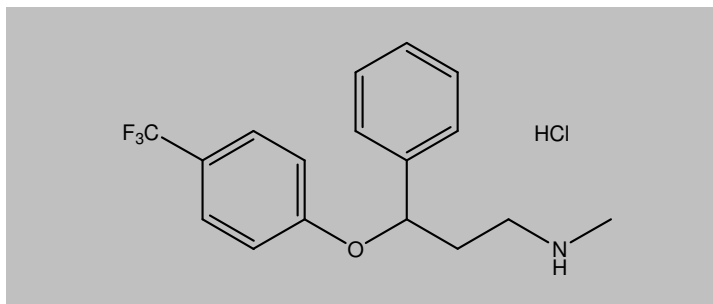
Quality Control Testing and Research Application

COA Preparation Date: 16/07/2015
COA Revision Date: 16/07/2018

Product: Fluoxetine hydrochloride
Cat. No.: BG0197
Batch No.: 0197BG/04
Chemical Name: *N*-Methyl-3-phenyl-3-(4-(trifluoromethyl)phenoxy)propylamine hydrochloride;
Prozac

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₈F₃NO .HCl
Batch Molecular Weight: 345.79
CAS No.: [59333-67-4]
Physical Appearance: White solid
Melting Point: 156 - 158° C
Solubility: Soluble to 10 mM in water or to 100 mM in DMSO
Storage: RT
Batch Molecular Structure:



Product Description: Selective Serotonin Reuptake Inhibitor (SSRI) and antidepressant. Binds to the human Serotonin Transporter (SERT) with a K_i of 0.9 nM. Displays 150- and 900-fold selectivity over 5-HT_{1A}, 5-HT_{2A}, Histamine H₁, α₁-, α₂-adrenergic and muscarinic receptors. Inhibits Cytochrome P450 CYP2C19, 2D6, 3A4, 3A5 and 3A7. Also exhibits potent antiinflammatory activity in human and murine models of Rheumatoid Arthritis and inhibits Toll-Like Receptors. Recently, it was shown that Fluoxetine treatment acts directly on raphe neurons to antagonize canonical Wnt signalling and enhance miR-16 maturation, thus inducing a downregulation of SERT and prolonging serotonergic signalling.

References: 1. Benfield et al. (1986) *Drugs* 32:481; 2. Owens et al. (1997) *J Pharmacol Exp Ther* 283:1305; 3. Sacre et al. (2010) *Arthritis Rheum* 62:683; 4. Baudry et al. (2010) *Science* 329:1537; 5. Sandoz et al. (2011) *Proc Natl Acad Sci USA* 108:2605

- CAUTION - Not fully tested. For Research use only. Not for human use. -



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BG0197 Fluoxetine hydrochloride

2. ANALYTICAL DATA

HPLC: corresponds to the reference

MS: corresponds to the reference

Tests: Heavy Metals: < 20 ppm (complies); Optical rotation: +0.0° (complies); HPLC Assay: > 99% (complies).

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