

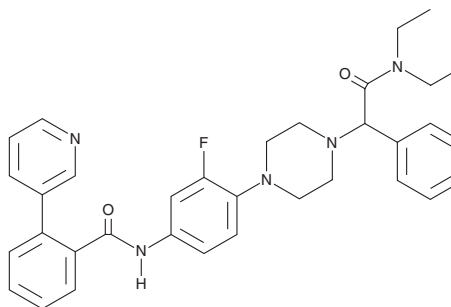
# PRODUCT INFORMATION

**JNJ-31020028**

Item No. 18407



**CAS Registry No.:** 1094873-14-9  
**Formal Name:** N,N-diethyl-4-[2-fluoro-4-[[2-(3-pyridinyl)benzoyl]amino]phenyl]- $\alpha$ -phenyl-1-piperazineacetamide  
**MF:** C<sub>34</sub>H<sub>36</sub>FN<sub>5</sub>O<sub>2</sub>  
**FW:** 565.7  
**Purity:**  $\geq 95\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 267 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq 4$  years



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

## Laboratory Procedures

JNJ-31020028 is supplied as a crystalline solid. A stock solution may be made by dissolving the JNJ-31020028 in the solvent of choice, which should be purged with an inert gas. JNJ-31020028 is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

## Description

JNJ-31020028 is a brain-permeable selective antagonist of the neuropeptide Y (NPY) receptor Y<sub>2</sub> (IC<sub>50</sub>s = 8.51, 6.03, and 6.17 nM for human, rat, and mouse receptors, respectively) with over 100-fold selectivity for Y<sub>2</sub> over Y<sub>1</sub>, Y<sub>4</sub>, and Y<sub>5</sub> receptors.<sup>1,2</sup> JNJ-31020028 inhibits calcium release induced by peptide YY in a functional assay in KAN-TS cells (pK<sub>B</sub> = 8.04) and blocks NPY(13-36)-induced decreases in twitch contraction amplitude in isolated rat vas deferens (IC<sub>50</sub> = 7.94 nM).<sup>1</sup> Administration of JNJ-31020028 to rats during abstinence (20 mg/kg per day, i.p.) reverses nicotine-induced social anxiety-like behavior and increases hippocampal Y<sub>2</sub> receptor mRNA levels.<sup>3</sup> It reverses withdrawal-induced anxiety-like behavior in rats in the elevated plus maze following a single bolus dose of alcohol when administered at a dose of 15 mg/kg.<sup>4</sup> In an olfactory bulbectomized rat model of depression, chronic JNJ-31020028 treatment (10 nmol per day, i.c.v.) decreases immobility time in the forced swim test but has no effect in control animals.<sup>5</sup>

## References

1. Shoblock, J.R., Welty, N., Nepomuceno, D., et al. *Psychopharmacology (Berl)* **208**(2), 265-277 (2010).
2. Swanson, D.M., Wong, V.D., Jablonowski, J.A., et al. *Bioorg. Med. Chem. Lett.* **21**(18), 5552-5556 (2011).
3. Aydin, C., Oztan, O., and Isgor, C. *Behav. Brain Res.* **222**(2), 332-341 (2011).
4. Cippitelli, A., Rezvani, A.H., Robinson, J.E., et al. *Alcohol* **45**(6), 567-576 (2011).
5. Morales-Medina, J.C., Dumont, Y., Bonaventure, P., et al. *Neuropeptides* **46**(6), 329-334 (2012).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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