

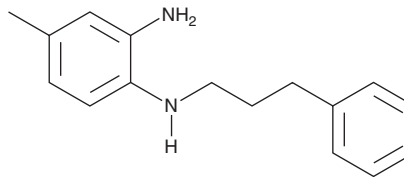
PRODUCT INFORMATION



JSH-23

Item No. 15036

CAS Registry No.: 749886-87-1
Formal Name: 4-methyl-N1-(3-phenylpropyl)-
1,2-benzenediamine
Synonym: NF-κB Activation Inhibitor II
MF: C₁₆H₂₀N₂
FW: 240.3
Purity: ≥98%
UV/Vis.: λ_{max}: 212, 246, 302 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

JSH-23 is supplied as a crystalline solid. A stock solution may be made by dissolving the JSH-23 in the solvent of choice, which should be purged with an inert gas. JSH-23 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of JSH-23 in ethanol is approximately 10 mg/ml and approximately 25 mg/ml in DMSO and DMF.

JSH-23 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, JSH-23 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. JSH-23 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

JSH-23 is an inhibitor of NF-κB, blocking its translocation into the nucleus (IC₅₀ = 7.1 μM).¹ It does not affect degradation of the inhibitor of NF-κB, IκB.¹ JSH-23 interferes with NF-κB-mediated gene expression and apoptosis in RAW 264.7 cells treated with lipopolysaccharide.¹ It has also been used to investigate the roles of NF-κB in cancer, inflammation, and neurogenesis.²⁻⁴

References

1. Shin, H.M., Kim, M.H., Kim, B.H., *et al.* Inhibitory action of novel aromatic diamine compound on lipopolysaccharide-induced nuclear translocation of NF-κB without affecting IκB degradation. *FEBS Lett.* **571(1-3)**, 50-54 (2004).
2. Ahmed, K.M., Zhang, H., and Park, C.C. NF-κB regulates radioresistance mediated by b1-integrin in three-dimensional culture of breast cancer cells. *Cancer Res.* **73(12)**, 3737-3748 (2013).
3. Kumar, A., Negi, G., and Sharma, S.S. JSH-23 targets nuclear factor-kappa B and reverses various deficits in experimental diabetic neuropathy: Effect on neuroinflammation and antioxidant defence. *Diabetes Obes. Metab.* **13(8)**, 750-758 (2011).
4. Koo, J.W., Russo, S.J., Ferguson, D., *et al.* Nuclear factor-κB is a critical mediator of stress-impaired neurogenesis and depressive behavior. *Proc. Natl. Acad. Sci. USA* **107(6)**, 2669-2674 (2010).

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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