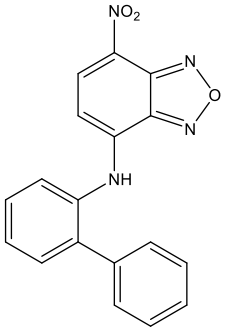
**Catalog # 10-5627**

**10074-G5**

CAS# 413611-93-5

7-Nitro-N-(2-phenylphenyl)-2,1,3-benzoxadiazol-4-amine

Lot # S106255




10074-G5 inhibits c-Myc by disrupting c-Myc/Max heterodimer formation and inhibiting its transcriptional activity.[1] 10074-G5 binds to the c-Myc bHLHZip domain with $K_d$=2.8 μM.[1] It was cytotoxic in C-Myc-overexpressing cell lines ($IC_{50}$s = 13 to 15 μM) but was not active *in vivo* due to rapid metabolism.[2] 10074-G5 is a useful tool to probe for involvement of c-Myc involvement in cellular processes.[3,4] Binds to and sequesters the intrinsically disordered amyloid-β (Aβ) in its monomeric soluble state and rescues a *C. elegans* model of Aβ-associated toxicity.[5]


1) Follis *et al.* (2008), *Structural rationale for the coupled binding and unfolding of the c-Myc oncoprotein by small molecules*; Chem..Biol. **15** 1149
2) Clausen *et al.* (2010), *In vitro cytotoxicity and in vivo efficacy, pharmacokinetics, and metabolism of 10074-G5, a novel small-molecule inhibitor of c-Myc/Max dimerization;* J. Pharmacol. Exp. Ther. **335** 715
3) Velpula *et al.* (2012), *Transcriptional repression of Mad-Max complex by human umbilical cord blood stem cells downregulates extracellular signal-regulated kinase in glioblastoma;* Stem Cells Dev. **21** 1779
4) Wu *et al.* (2018), *Oxidative stress enhances tumorigenicity and stem-like features via the activation of the Wnt/β-catenin/MYC/Sox2 axis in ALK-positive anaplastic large-cell lymphoma;* BMC Cancer **18** 361
5) Heller *et al.* (2020), *Small-molecule sequestration of amyloid-β as a drug discovery strategy for Alzheimer's disease;* Sci. Adv. **6** eabb5924


## PHYSICAL DATA

| | |
|---|---|
| Molecular Weight: | 332.32 |
| Molecular Formula: | $C_{18}H_{12}N_4O_3$ |
| Purity: | >98% by TLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (40 mg/ml) |
| Physical Description: | Orange solid |
| Storage and Stability: | Store as supplied 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. |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