Small Molecules

QNZ
NF-kB pathway inhibitor; Inhibits NF-kB
Catalog # 73352 1 mg

Product Description

QNZ is a quinazoline derivative that inhibits nuclear factor (NF)-κB activation (IC_{50} = 11 nM in human Jurkat T lymphocyte cells). NF-κB enhances the transcription of pro-inflammatory cytokines, and QNZ inhibits lipopolysaccharide (LPS)-stimulated tumor necrosis factor (TNF)-α production in mouse splenocytes (IC_{50} = 7 nM; Tobe et al.), as well as CXCL1-mediated pro-inflammatory increase in potassium currents in adult rat neurons (Yang et al). It does not inhibit kinases in a standard screen (Wu et al.).

Molecular Name: QNZ
Alternative Names: CAY10470
CAS Number: 545380-34-5
Chemical Formula: C_{22}H_{20}N_{4}O
Molecular Weight: 356.4 g/mol
Purity: ≥ 98%
Chemical Name: N4-[2-(4-phenoxyphenyl)ethyl]-4,6-quinazolinediamine
Structure:

Properties

Physical Appearance: A crystalline solid
Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light. Stable as supplied for 12 months from date of receipt.
Solubility:
- DMSO ≤ 55 mM
- Absolute ethanol ≤ 25 mM

For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 281 μL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.
Published Applications

MAINTENANCE AND SELF-RENEWAL
- Protective in a glutamate toxicity assay using YAC128 medium spiny neuron cultures (Wu et al.).

DISEASE MODELING
- Blocks amyloid precursor protein release in human SH-SY5Y neuroblastoma cells caused by muscarinic receptor activation (Choi et al.).

References


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