

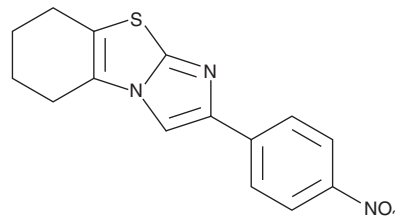
PRODUCT INFORMATION



p-nitro-Cyclic Pifithrin- α

Item No. 17848

CAS Registry No.: 60477-38-5
Formal Name: 5,6,7,8-tetrahydro-2-(4-nitrophenyl)-imidazo[2,1-b]benzothiazole
Synonyms: Cyclic pifithrin- α -*p*-nitro, *p*-nitro-Cyclic PFT- α
MF: C₁₅H₁₃N₃O₂S
FW: 299.3
Purity: \geq 95%
UV/Vis.: λ_{max} : 234, 349 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

p-nitro-Cyclic pifithrin- α is supplied as a crystalline solid. A stock solution may be made by dissolving the *p*-nitro-cyclic pifithrin- α in the solvent of choice, which should be purged with an inert gas. *p*-nitro-Cyclic pifithrin- α is soluble in the organic solvent dimethyl formamide at a concentration of approximately 1 mg/ml.

Description

PFT- α (Item No. 13326) is an inactivator of p53 that blocks p53-dependent transcriptional activation and apoptosis.¹ Cyclic PFT- α (Item No. 14748) is a stable analog of PFT- α .² *p*-nitro-Cyclic PFT- α is a cell-permeable form of cyclic PFT- α .³ It is one order of magnitude more active than PFT- α in protecting cortical neurons exposed to etoposide (ED₅₀ = 30 nM).³ *p*-nitro-Cyclic PFT- α acts in a p53-dependent manner but does not block phosphorylation of p53 on Ser¹⁵ in response to etoposide treatment, although it prevents p53 posttranscriptional activity.³ Although it is more stable in solution than the parent compound, this derivative is not active *in vivo*.³

References

1. Komarov, P.G., Komarova, E.A., Kondratov, R.V., *et al.* A chemical inhibitor of p53 that protects mice from the side effects of cancer therapy. *Science* **285**, 1733-1737 (1999).
2. Walton, M.I., Wilson, S.C., Hardcastle, I.R., *et al.* An evaluation of the ability of pifithrin- α and - β to inhibit p53 function in two wild-type p53 human tumor cell lines. *Mol. Cancer Ther.* **4(9)**, 1369-1377 (2005).
3. Pietrancosta, N., Moumen, A., Dono, R., *et al.* Imino-tetrahydro-benzothiazole derivatives as p53 inhibitors: Discovery of a highly potent *in vivo* inhibitor and its action mechanism. *J. Med. Chem.* **49(12)**, 3645-3652 (2006).

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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