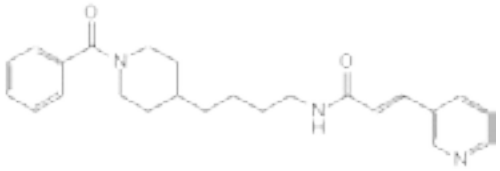
FK-866, HCl

Catalog Number P006-5MG

Catalog Number P006-25MG

FEATURES

- Specific inhibitor of NAMPT
- Indirect inhibitor of SIRT1
- Causes gradual NAD^+ depletion



INTRODUCTION

FK-866 is a selective inhibitor of the nicotinamide pathway dependent NAD^+ synthesis, causing NAD^+ depletion. Highly specific, non-competitive inhibitor of nicotinamide phosphoribosyltransferase (NAMPT/NAPRT) for both the substrate complex and the free enzyme (Ki=0.4 nM and Ki´=0.3 nM, respectively). NAD^+ depletion by FK-866 directs delayed cell death by apoptosis in Hep-G_2 human liver carcinoma cells (IC50=~1 nM). Causes premature senescence in normal human smooth muscle cells, an effect that may be linked to decreased activity of the NAD^+-dependent enzyme SIRT1.

FORM:	White powder
MOLECULAR WEIGHT:	427.95 (as hydrochloride)
STORAGE:	-20°C, desiccated
FORMULA:	$C_{24}H_{30}N_3ClO_2$
CAS NUMBER:	658084-64-1 (as free base)
OTHER NAMES:	K 22.175, N-[4-(1-benzoyl-4-piperidinyl)butyl]-3-(3-pyridinyl)-2E-propenamide
USES:	Soluble to 25 mg/mL in DMSO and DMF, 40 mg/mL in water

REFERENCES:

Hasmann, M. and Schemainda, I. FK866, a highly specific noncompetitive inhibitor of nicotinamide phosphoribosyltransferase, represents a novel mechanism for induction of tumor cell apoptosis. Cancer Res. 63, 7436-7442 (2003).

van der Veer, E., Ho, C., O'Neil, C., et al. Extension of human cell lifespan by nicotinamide phosphoribosyltransferase. J. Biol. Chem. 282:15, 10841-10845 (2007).

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