

# FK-866

## Nampt inhibitor

Selective inhibitor of the nicotinamide pathway dependent  $\text{NAD}^+$  synthesis, causing  $\text{NAD}^+$  depletion. Highly specific, non-competitive inhibitor of nicotinamide phosphoribosyltransferase (NAMPT/NAPRT) for both the enzyme/substrate complex and the free enzyme ( $K_i=0.4$  nM and  $K_i'=0.3$  nM, respectively).  $\text{NAD}^+$  depletion by FK-866 directs delayed cell death by apoptosis in Hep-G2 human liver carcinoma cells ( $\text{IC}_{50} \sim 1$  nM). Causes premature senescence in normal human smooth muscle cells. Induces autophagy in SH-SY5Y neuroblastoma cells, as indicated by the formation of LC3-positive vesicles.

NAMPT catalyzes the condensation of nicotinamide with 5-phosphoribosyl-1-pyrophosphate to yield nicotinamide mononucleotide, an intermediate in the biosynthesis of  $\text{NAD}^+$ . It is the major rate limiting component in the mammalian  $\text{NAD}^+$  biosynthesis pathway.

Citations: 12

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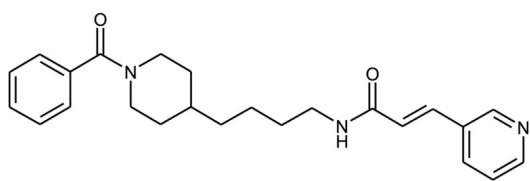
## Ordering Information

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ALX-270-501-M001	1mg
ALX-270-501-M005	5mg

## Manuals, SDS & CofA

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## Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Handling	Very hygroscopic Packaged under inert gas. Keep under inert gas.
Long Term Storage	-20°C
Shipping	Blue Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

Alternative Name	K 22.175, N-[4-(1-benzoyl-4-piperidiny)butyl]-3-(3-pyridinyl)-2E-propenamide
Appearance	White to yellow solid.
CAS	658084-64-1
Couple Target	Nampt
Couple Type	Inhibitor
Formula	$C_{24}H_{29}N_3O_2$
MW	391.5
Purity	≥98% (NMR)
Solubility	Soluble in 100% ethanol, dimethyl formamide (40mg/ml) or DMSO (25mg/ml); sparingly soluble in aqueous buffers.
Source	Synthetic.



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