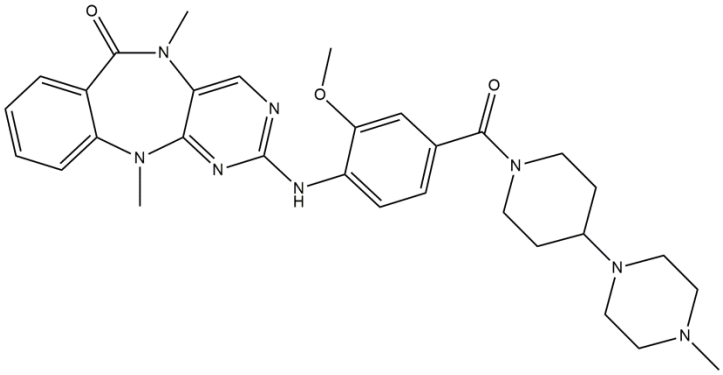
LRRK2-IN-1

ALTERNATE NAMES: 5,11-dihydro-2-[[2-methoxy-4-[[4-(4-methyl-1-piperazinyl)- 1-piperidinyl]carbonyl] phenyl]amino]- 5,11-dimethyl-6H-pyrimido[4,5-b][1,4] benzodiazepin-6-one; 2-[2-methoxy-4-[4-(4-methylpiperazin-1-yl)piperidine-1-carbonyl]anilino]-5,11-dimethylpyrimido[4,5-b][1,4]benzodiazepin-6-one; Leucine-rich repeat kinase 2 IN-1; LRRK2IN1

CATALOG #:
B2940-1 1 mg
B2940-5 5 mg

STRUCTURE:



MOLECULAR FORMULA: $C_{31}H_{38}N_8O_3$

MOLECULAR WEIGHT: 570.69

CAS NUMBER: 1234480-84-2

APPEARANCE: A crystalline solid

PURITY: 99.38%

SOLUBILITY:
~25 mg/ml in Ethanol
~20 mg/ml in DMF
~16 mg/ml in DMSO

DESCRIPTION: LRRK2-IN-1 is a potent inhibitor of Leucine-rich repeat kinase 2 (LRRK2). Mutations in LRRK2 are associated with Parkinson's disease. LRRK2-IN-1 inhibits wild-type and G2019S mutant LRRK2 with IC_{50} values of 13 nM and 6 nM, respectively. It suppresses LRRK2 kinase activity *in vivo* leading to dephosphorylation of Ser910/Ser935, loss of 14-3-3 binding and accumulation of LRRK2 within aggregate structures. It stimulates autophagy in H4 neuroglioma cells.

STORAGE TEMPERATURE: -20ºC. Store in the dark. Product is light sensitive. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Manzoni, C., Mamais, A., Dihanich, S., et al. Inhibition of LRRK2 kinase activity stimulates macroautophagy. Biochem.Biophys.Acta. 1833, 2900-2910 (2013).
2. Deng, X., Dzamko, N., Prescott, A., et al. Characterization of a selective inhibitor of the Parkinson's disease kinase LRRK2. Nature Chemical Biology 7(4), 203-205 (2011).

RELATED PRODUCTS:

GSK2578215A (Cat. No. 2845)
CZC-54252 hydrochloride (Cat. No. 9567)
LRRK2 (Human) ELISA Kit (Cat. No. K4228)
PF-06447475 (Cat. No. 9447)
HG-10-012-01 (Cat. No. 2604)

DISCLAIMER: ***FOR RESEARCH USE ONLY! Not to be used on humans.***