

Data Sheet

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 Product Name
 :
 LRRK2-IN-1

 Cat. No.
 :
 PC-42726

 CAS No.
 :
 1234480-84-2

 Molecular Formula
 :
 C₃₁H₃₈N₈O₃

 Molecular Weight
 :
 570.6852

 Target
 :
 LRRK2

Solubility : 10 mM in DMSO

Biological Activity

LRRK2-IN-1 is a potent **LRRK2** inhibitor with IC50s of 13 nM/6 nM for wild-type/G2019S mutant LRRK2 repectively (0.1 mM ATP in the assay), also induces cell cycle arrest and cancer cell death by specifically binding to human proliferating cell nuclear antigen (**PCNA**) in cancer cells.

LRRK2-IN-1 shows modest activity against LRRK2 A2016T (IC50=2.45 uM) and LRRK2 A2016T+G2019S mutant (IC50=3.08 uM); also inhibits DCLK1 (IC50=2.61 nM) and 2 (IC50=45 nM).

LRRK2-IN-1 induces dephosphorylation of Ser910 and Ser935 of LRRK2 and alters the cytoplasmic localisation of LRRK2. LRRK2-IN-1 demonstrated antiproliferative activity by inhibiting DNA replication processes and inducing cell cycle arrest.

References

Deng X, et al. *Nat Chem Biol.* 2011 Apr;7(4):203-5.

Weygant N, et al. *Mol Cancer*. 2014 May 6;13:103.

Luerman GC, et al. *J Neurochem*. 2014 Feb;128(4):561-76.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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