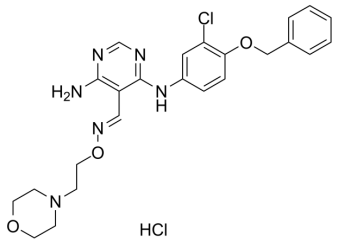
JNJ28871063 hydrochloride

Cat. No.:	HY-103441
CAS No.:	944342-90-9
Molecular Formula:	$C_{24}H_{28}Cl_2N_6O_3$
Molecular Weight:	519.42
Target:	EGFR
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

JNJ28871063 hydrochloride is an orally active, highly selective and ATP competitive pan-ErbB kinase inhibitor with IC_{50} values of 22 nM, 38 nM, and 21 nM for ErbB1, ErbB2, and ErbB4, respectively. JNJ28871063 hydrochloride inhibits phosphorylation of functionally important tyrosine residues in both EGFR and ErbB2. JNJ28871063 hydrochloride crosses the blood-brain barrier and has antitumor activity in human tumor xenograft models that overexpress EGFR and ErbB2[1].

IC_{50} & Target

ErbB1	ErbB2	ErbB4
22 nM (IC_{50})	38 nM (IC_{50})	21 nM (IC_{50})

In Vitro

JNJ-28871063 demonstrates potent growth inhibition in vitro of human cancer cell lines (N87; BT474; SKBR3; A431; HN5) overexpressing the ErbB2 receptor with IC_{50} values with 60-168 nM. 28871063 exhibited the least effect at inhibiting growth of non–ErbB-over-expressing cell lines (HeLa, A375, HCT116, HT29, MRC5 primary fibroblasts cells; IC_{50}>10 μM)[1].
JNJ-28871063 hydrochloride (3 μM; 16 hours) reduces the basal level of ErbB2 phosphorylation in SKBR3 cells[1].
JNJ28871063 hydrochloride is from an aminopyrimidine oxime structural class[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	BT474 cells
Concentration:	3 μM
Incubation Time:	16 hours
Result:	Reduced the basal level of ErbB2 phosphorylation.

In Vivo

JNJ28871063 hydrochloride (100 mg/kg/day; Oral; for 30 days) shows significant inhibition of tumor growth (TGI=71%)[1].
JNJ28871063 hydrochloride produces a significant inhibition of tumor growth at 100 mg/kg (TGI=66.8%) in an A431 human tumor xenograft model[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Nude mice bearing N87 tumor xenografts[1]
Dosage:	100 mg/kg

Administration:	Oral; daily for 30 days
Result:	Showed significant inhibition of tumor growth (TGI=71%).

REFERENCES

[1]. Stuart L Emanuel, et al. Cellular and in vivo activity of JNJ-28871063, a nonquinazoline pan-ErbB kinase inhibitor that crosses the blood-brain barrier and displays efficacy against intracranial tumors. Mol Pharmacol. 2008 Feb;73(2):338-48.

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