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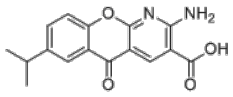
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	Amlexanox
Cat. No.	:	PC-20619
CAS No.	:	68302-57-8
Molecular Formula	:	$C_{16}H_{14}N_2O_4$
Molecular Weight	:	298.30
Target	:	IκB kinase (IKK)
Solubility	:	10 mM in DMSO



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Biological Activity

Amoxanox (AA-673) is a high affinity, specific inhibitor of IKKε and TBK1 with IC50 of 1-2 uM for both, without effect on IKKα or IKKβ.
Amoxanox (AA-673) reduces leukotriene D4- and platelet-activating factor-induced bronchoconstriction in guinea pigs, strongly suggesting an antagonistic activity against slow reacting substance of anaphylaxis.
Amoxanox (AA-673) is an approved small-molecule therapeutic presently used in the clinic to treat aphthous ulcers and asthma.
Amoxanox (AA-673) increases phosphorylation of TBK1 on Ser172 in 3T3-L1 adipocytes, and blocks polyinosinic:polycytidylic acid (poly I:C)-stimulated phosphorylation of interferon responsive factor-3 (IRF3), a presumed substrate of IKKε and TBK1.
Amoxanox (AA-673) (25 mg/kg, daily gavage) prevents and reverses diet-induced or genetic obesity, improves insulin sensitivity and glucose tolerance in obese mice.
Amoxanox (AA-673) reverses hepatic steatosis, reduces chronic adipose tissue inflammation and promotes energy expenditure in adipose tissue in obese mice.

References

T Saijo, et al. Int Arch Allergy Appl Immunol. 1985;77(3):315-21.

Zhang Y, et al. Sci Rep. 2015 Sep 4;5:13575.

Reilly SM, et al. Nat Med. 2013 Mar;19(3):313-21.

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

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