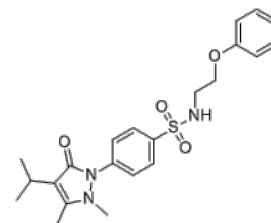


Product Name : BC-LI-0186
Cat. No. : PC-38333
CAS No. : 695207-56-8
Molecular Formula : C₂₂H₂₇N₃O₄S
Molecular Weight : 429.535
Target : mTOR
Solubility : 10 mM in DMSO



Biological Activity

BC-LI-0186 is a potent, specific inhibitor of **Leucyl-tRNA synthetase** (LRS, LeuRS), inhibits the leucine-dependent **mTORC1** pathway.

BC-LI-0186 binds to the RagD interacting site of LRS with KD of 42.1 nM, thereby inhibiting lysosomal localization of LRS and mTORC1 activity.

BC-LI-0186 specifically inhibiting the GTPase activating function of LRS, while not affecting the catalytic activity.

BC-LI-0186 binds to the RagD interacting site of LRS, thereby inhibiting lysosomal localization of LRS and mTORC1 activity.

BC-LI-0186 inhibited cancer cell growth human colon cancer SW620 cells with GI50 of 11 nM, inhibited mTORC1 activity, accompanied by PARP or procaspase-3 cleavage.

BC-LI-0186 inhibited the mTORC1 pathway via LRS even in the presence of the known cancer-associated MTOR mutations, overcome acquired rapamycin resistance both in vitro and in vivo.

References

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Kim JH, et al. *Nat Commun*. 2017 Sep 29;8(1):732.

Son K, et al. *J Clin Invest*. 2019 Apr 15;129(5):2088-2093.

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

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