

## IM156

ALTERNATE NAMES:

HL156A, N'-[N'-[4-(trifluoromethoxy)phenyl]carbamimidoyl]pyrrolidine-1-carboximidamide; N-(Imino((4-(trifluoromethoxy)phenyl)amino)methyl)-1-pyrrolidinecarboximidamide

CATALOG #:

B3126-5 5 mg B3126-25 25 mg

STRUCTURE:

NH NH F F	
MOLECULAR FORMULA:	$C_{13}H_{16}F_3N_5O$
MOLECULAR WEIGHT:	315.29
CAS NUMBER:	1422365-93-2
APPEARANCE:	White to off-white solid powder
PURITY:	98%
SOLUBILITY:	60 mg/ml in DMSO
DESCRIPTION:	IM156 is a bioenergetic biguanide derivative which blocks mitochondrial complex I and an activator of AMP-activated protein kinase (AMPK). It is a derivative of metformin. IM156 causes energy depletion in tumor cells by inhibiting oxidative phosphorylation. IM156 at a concentration of 15 $\mu$ M in combination with temozolomide decreases the stemness and invasive properties of glioblastoma tumorspheres. IM156 is in phase I clinical trials for advanced solid tumors and lymphoma.
STORAGE TEMPERATURE:	-20 °C. Store in the dark. Product is light sensitive.
HANDLING:	Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.
REFERENCES:	<ol> <li>Choi, J., Lee, J.H., Koh, I., et al. Inhibiting stemness and invasive properties of glioblastoma tumorsphere by combined treatment with temozolomide and a newly designed biguanide (HL156A). Oncotarget 7(40):65643-65659 (2016).</li> <li>Son, J., Cho, Y.W., Woo, Y.J., et al. Metabolic Reprogramming by the Excessive AMPK Activation Exacerbates Antigen-Specific Memory CD8 + T Cell Differentiation after Acute Lymphocytic Choriomeningitis Virus Infection. Immune Netw. 19(2):e11 (2019).</li> </ol>

## **RELATED PRODUCTS:**

ASP-4132 tosylate (Cat. No. B2748) ZLN024 hydrochloride (Cat. No. B2034) PF-06409577 (Cat. No. B2033) EX-229 (Cat. No. B2434) MK-3903 (Cat. No. B2431)

## DISCLAIMER:

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