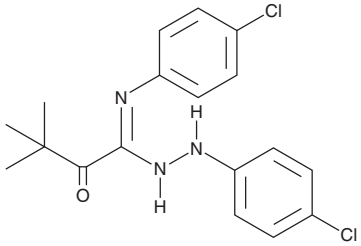
PRODUCT INFORMATION

TY 52156

Item No. 19119

CAS Registry No.:	934369-14-9
Formal Name:	N-(4-chlorophenyl)-3,3-dimethyl-2-oxobutanimidic acid, 2-(4-chlorophenyl)hydrazide
MF:	$C_{18}H_{19}Cl_2N_3O$
FW:	364.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 248, 301, 359 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TY 52156 is supplied as a crystalline solid. A stock solution may be made by dissolving the TY 52156 in the solvent of choice. TY 52156 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of TY 52156 in these solvents is approximately 15, 25, and 30 mg/ml, respectively.

TY 52156 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

TY 52156 is a selective sphingosine-1-phosphate receptor 3 (SIP_3) antagonist (K_i = 110 nM).[1] It preferentially inhibits the S1P-induced increase in intracellular calcium in Chinese hamster ovary cells expressing $S1P_3$ over cells expressing $S1P_1$, $S1P_2$, or $S1P_4$.[1] TY 52156 has been shown to suppress FTY720-induced $S1P_3$ receptor-mediated coronary flow in isolated perfused rat hearts.[1] TY 52156 can also inhibit S1P-induced breast cancer stem cell expansion *in vitro*.[2]

References

1. Murakami, A., Takasugi, H., Ohnuma, S., *et al.* Sphingosine 1-phosphate (S1P) regulates vascular contraction *via* $S1P_3$ receptor: Investigation based on a new $S1P_3$ receptor antagonist. *Mol. Pharmacol.* **77(4)**, 704-713 (2016).
2. Hirata, N., Yamada, S., Shoda, T., *et al.* Sphingosine-1-phosphate promotes expansion of cancer stem cells *via* $S1PR_3$ by a ligand-independent Notch activation. *Nat. Commun.* **5:4806**, (2014).

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