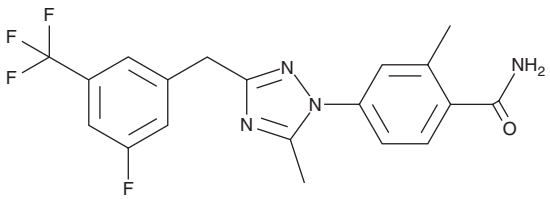
PRODUCT INFORMATION

TP-024

Item No. 41144

CAS Registry No.:	1358575-02-6
Formal Name:	4-[3-[[3-fluoro-5-(trifluoromethyl) phenyl]methyl]-5-methyl-1H-1,2,4-triazol-1-yl]-2-methyl-benzamide
Synonym:	FTBMT
MF:	$C_{19}H_{16}F_4N_4O$
FW:	392.4
Purity:	≥98%
Supplied as:	A 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

TP-024 is supplied as a solid. A stock solution may be made by dissolving the TP-024 in the solvent of choice, which should be purged with an inert gas. TP-024 is slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in acetonitrile and DMSO.

Description

TP-024 is an agonist of G protein-coupled receptor 52 (GPR52).[1,2] It increases cAMP levels in CHO cells expressing human GPR52 (EC_{50} = 75 nM).[1] It is selective for GPR52 over 98 other receptors, ion channels, and enzymes at 10 µM.[2] TP-024 (30 mg/kg, i.p.) increases c-Fos expression in the shell of the nucleus accumbens to a greater extent than in the dorsomedial striatum. It reduces MK-801-induced hyperactivity in mice without inducing catalepsy. TP-024 (3 and 10 mg/kg) increases the time spent with the novel object in the novel object recognition test in rats. It also reduces the number of errors in the radial arm maze in rats in a model of MK-801-induced working memory deficits.

References

1. Tokumaru, K., Ito, I., Nomura, T., *et al.* Design, synthesis, and pharmacological evaluation of 4-azolyl-benzamide derivatives as novel GPR52 agonists. *Bioorg. Med. Chem.* **25(12)**, 3098-3115 (2017).
2. Nishiyama, K., Suzuki, H., Harasawa, T., *et al.* FTBMT, a novel and selective GPR52 agonist, demonstrates antipsychotic-like and procognitive effects in rodents, revealing a potential therapeutic agent for schizophrenia. *J. Pharmacol. Exp. Ther.* **363(2)**, (2017).

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