Product Name	:	(Arg)9 TFA
Synonyms	:	Nona-L-arginine (TFA),Peptide R9 (TFA)
Cat No.	:	M22290
CAS Number	:	2283335-13-5
Molecular Formula	:	C56H111N36F3O12
Formula Weight	:	1537.71
Chemical Name	:	——
Description	:	(Arg)9 TFA (Nona-L-arginine TFA), a cell-penetrating peptide, exhibits neuroprotective activity with an IC50 of 0.78 μM in the glutamic acid model.Poly-arginine (e.g. (Arg)9) and arginine-rich peptides (e.g. TAT, penetratin), which belong to a class of peptides with cell-penetrating properties are neuroprotective. (Arg)9 provides significant neuroprotection in a dose–response manner following glutamic acid exposure (IC50=0.78 μM). Following kainic acid exposure, (Arg)9 is neuroprotective, but less effective than in the glutamic acid model (IC50=0.81 μM). (Arg)9 also shows neuroprotection following in vitro ischemia (IC50=6 μM).(Arg)9) (D-isoform) is neuroprotective in rat stroke models. (Arg)9) is highly neuroprotective, with efficacy increasing with increasing arginine content, has the capacity to reduce glutamic acid-induced neuronal calcium influx and requires heparan sulfate preotoglycan-mediated endocytosis to induce a neuroprotective effect. (Arg)9) (D-isoform) administered intravenously at a dose of 1000 nmol/kg 30 min after permanent middle cerebral artery occlusion (MCAO) reduces infarct volume.
Pathway	:	Others
Target	:	Other Targets
Receptor	:	neuroprotection
Solubility	:	H2O
SMILES	:	OC(=O)C(F)(F)F.N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(O)=O
Storage	:	(-20℃)
Stability	:	≥ 2 years
Reference	:	

1.Meloni BP, et al. The neuroprotective efficacy of cell-penetrating peptides TAT, penetratin, Arg-9, and Pep-1 in glutamic acid, kainic acid, and in vitro ischemia injury models using primary cortical neuronal cultures. Cell Mol Neurobiol. 2014 Mar;34(2):173-81.