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DATASHEET

MTEP hydrochloride

Product overview

Name	MTEP hydrochloride
Cat No	HB0431
Biological action	Antagonist
Purity	>98%
Description	Potent, highly selective, non-competitive $mGluR_5$ antagonist

Images

Biological Data

Biological description

MTEP hydrochloride is a potent, highly selective and non-competitive $mGlu_5$ receptor antagonist (IC_{50} = 5 nM and K_i = 16 nM in an *in vitro* Ca^{2+}-flux assay).

MTEP has no significant effect on other mGluRs and shows fewer off-target effects than MPEP hydrochloride. MTEP shows ~10-fold greater selectivity for $mGlu_5$ than MPEP.

MTEP also blocks induction of tLTP (timing-dependent long term potentiation) and has antidepressant, anxiolytic and neuroprotective properties.

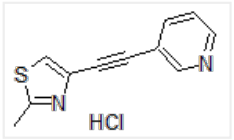
MTEP is active *in vivo*.

Solubility & Handling

Storage instructions	+4°C (desiccate)
Solubility overview	Soluble in water (100mM) and in DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	3-((2-Methyl-1,3-thiazol-4-yl)ethynyl)pyridine hydrochloride
Molecular Weight	236.72

Chemical structure	
Molecular Formula	$C_{11}H_8N_2S.HCl$
CAS Number	1186195-60-7
PubChem identifier	45073467
SMILES	CC1=NC(=CS1)C#CC2=CN=CC=C2.Cl
Source	Synthetic
InChi	InChI=1S/C11H8N2S.ClH/c1-9-13-11(8-14-9)5-4-10-3-2-6-12-7-10;/h2-3,6-8H,1H3;1H
InChiKey	YCIOJDKGCWAHLR-UHFFFAOYSA-N
MDL number	MFCD08458895
Appearance	Light cream solid

References

Neuroprotective potential of mGluR5 antagonist MTEP: effects on kainate-induced excitotoxicity in the rat hippocampus.

Domin H *et al* (2010) Pharmacol Rep 62(6)
PubMedID 21273662

NMDA but not AMPA glutamatergic receptors are involved in the antidepressant-like activity of MTEP during the forced swim test in mice.

Pomierny-Chamioło L *et al* (2010) Pharmacol Rep 62(6)
PubMedID 21273676

Metabotropic glutamate receptor 5 negative allosteric modulators as novel tools for in vivo investigation.

Keck TM *et al* (2012) ACS Med Chem Lett 3(7)
PubMedID 22924094

Metabotropic glutamate receptor subtype 5 antagonists MPEP and MTEP.

Lea and Faden (2006) CNS Drug Rev. 12(2)
PubMedID 16958988

Gating of NMDA receptor-mediated hippocampal spike timing-dependent potentiation by mGluR5.

Kwag and Paulsen (2012) Neuropharmacology 63(4)
PubMedID 22652057