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# DATASHEET

ACET

## Product overview

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|---|---|
| **Name** | ACET |
| **Cat No** | HB0102 |
| **Biological action** | Antagonist |
| **Purity** | >98% |
| **Description** | Potent, selective GluK1 (GluR5) kainate receptor antagonist |

## Biological Data

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| **Biological description** | Potent and selective GluK1 (GluR5) kainate receptor antagonist ($K_b$ = 1.4 nM). Ineffective at GluK2, GluK3 and mGluR $_6$ and $_7$ receptors. Blocks NMDA receptor -independent long term potentiation induction. |

## Solubility & Handling

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| **Storage instructions** | Room temperature |
| **Solubility overview** | Soluble in NaOH(aq) (10mM) |
| **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

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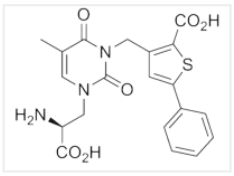
| **Chemical name** | (*S*)-1-(2-Amino-2-carboxyethyl)-3-(2 -carboxy-5-phenylthiophene-3-yl-methyl)-5-methylpyrimidine-2,4-dione |
| **Molecular Weight** | 429.45 |
| **Chemical structure** |  |
| **Molecular Formula** | $C_{20}H_{19}N_3O_6S$ |
| **CAS Number** | 936095-50-0 |
| **PubChem identifier** | 16125102 |
| **SMILES** | O=C(C(C)=CN1C[C@@H](C(O)=O)N)N(CC2=C(C(O)=O)SC(C3=CC=CC=C3)=C2)C1=O |
| **InChiKey** | LCZDCKMQSBGXAH-AWEZNQCLSA-N |

## References

**ACET is a highly potent and specific kainate receptor antagonist: characterisation and effects on hippocampal mossy fibre function.**

Dargan SL *et al* (2009) Neuropharmacology 56(1)
**PubMedID** 18789344

**Effects of the selective kainate receptor antagonist ACET on altered sensorimotor gating in a genetic model of reduced NMDA receptor function.**

Duncan GE *et al* (2012) Brain Res 1443
**PubMedID** 22297176

**Synthesis and pharmacological characterization of N3-substituted willardiine derivatives: role of the substituent at the 5-position of the uracil ring in the development of highly potent and selective GLUK5 kainate receptor antagonists.**

Dolman NP *et al* (2007) J Med Chem 50(7)
**PubMedID** 17348638