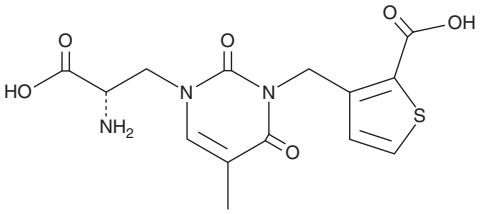
PRODUCT INFORMATION

UBP 310

Item No. 21806

CAS Registry No.: 902464-46-4
Formal Name: (αS)-α-amino-3-[(2-carboxy-3-thienyl) methyl]-3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinepropanoic acid
MF: $C_{14}H_{15}N_3O_6S$
FW: 353.4
Purity: ≥98%
UV/Vis.: λ_{max}: 262 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

UBP 310 is supplied as a crystalline solid. A stock solution may be made by dissolving the UBP 310 in the solvent of choice, which should be purged with an inert gas. UBP 310 is slightly soluble in the organic solvent DMSO.

Description

UBP 310 is an antagonist of ionotropic glutamate receptor 5 (GluR5 or GluK1; K_d = 130 nM).[1-3] It less potently binds GluR2 (GluA2) and GluR6 (GluK2; K_ds = 106 and 1,626 µM, respectively).[2,4] UBP 310 is inactive at metabotropic GluR group I and NMDA receptors.

References

1. Atlason, P.T., Scholefield, C.L., Eaves, R.J., *et al.* Mapping the ligand binding sites of kainate receptors: Molecular determinants of subunit-selective binding of the antagonist 3HUBP310. *Mol. Pharmacol.* **78(6)**, 1036-1045 (2010).
2. Mayer, M.L., Ghosal, A., Dolman, N.P., *et al.* Crystal structures of the kainate receptor GluR5 ligand binding core dimer with novel GluR5-selective antagonists. *J. Neurosci.* **26(11)**, 2852-2861 (2006).
3. Perrais, D., Pinheiro, P.S., Jane, D.E., *et al.* Antagonism of recombinant and native GluK3-containing kainate receptors. *Neuropharmacology* **56(1)**, 131-140 (2009).
4. Du, M., Rambhadran, A., and Jayaraman, V. Luminescence resonance energy transfer investigation of conformational changes in the ligand binding domain of a kainate receptor. *J. Biol. Chem.* **283(40)**, 27074-27078 (2008).

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