Tribioscience

ZJ43, Potent inhibitor of glutamate carboxypeptidases II and III

Catalog	Unit
TBI3904-5MG	5 mg
TBI3904-25MG	25 mg

Product Details

Formal Name: N-[[[(1S)-1-Carboxy-3-methylbutyl]amino]carbonyl]-L-glutamic acid Molecular Formula: $C_{12}H_{20}N_2O_7$ Formula Weight: 304.30 CAS Number: 723331-20-2 Purity: >98% Formulation: powder Solubility: Soluble in DMSO (up to at least 25 mg/ml) or in water (up to at least 25 mg/ml) Storage: -20°C Stability: ≥ 1 year.

Applications

Potent inhibitor of glutamate carboxypeptidases II and III

Functions

Potent inhibitor of glutamate carboxypeptidase II (Ki = 0.8 nM) and III (Ki = 23 nM). Potently inhibits (IC50 = 2.4 nM) the ability of glutamate carboxypeptidase II to hydrolyze the neurotransmitter N-acetylaspartylglutamate (NAAG), resulting in an increase in synaptic levels of group II mGluRs. Peripherally administered ZJ43 increased the activation of mGluR3 by NAAG released from peripheral sensory neurites resulting in analgesia. ZJ43 has also shown efficacy in other inflammatory pain models.

Application Procedures

First dissolved in DMSO (up to at least 25 mg/ml) or in water (up to at least 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or distilled water may be stored at -20° for up to 2 months.

For research use only.