PRODUCT INFORMATION



Anle138b

Item No. 34259

CAS Registry No.: 882697-00-9

Formal Name: 3-(1,3-benzodioxol-5-yl)-5-(3-

bromophenyl)-1H-pyrazole

MF: $C_{16}H_{11}BrN_{2}O_{2}$

FW: 343.2 **Purity:** ≥98% Supplied as: A 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

Anle138b is supplied as a solid. A stock solution may be made by dissolving the anle138b in the solvent of choice, which should be purged with an inert gas. Anle138b is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of anle138b in these solvents is approximately 30 mg/ml.

Anle138b is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, anle138b should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Anle138b has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Anle138b is an inhibitor of protein aggregation.¹ It inhibits α-synuclein oligomer formation and PrPSc prion propagation by 77 and 84%, respectively, when used at a concentration of 10 µM. Anle138b (1 mg/animal) inhibits brain accumulation of PrPSc in, and increases survival of, prion-infected mice. It reduces brain tau deposition and rescues glucose metabolic decline in a human tau transgenic mouse model of Alzheimer's disease.² Dietary administration of anle138b (0.6 and 2 g/kg chow) reduces the formation of α-synuclein oligomers and glial cytoplasmic inclusions, microglial activation, and dopaminergic neuron degradation, as well as preserves motor function, in a mouse model of multiple system atrophy (MSA).³

References

- 1. Wagner, J., Ryazanov, S., Leonov, A., et al. Anle138b: A novel oligomer modulator for disease-modifying therapy of neurodegenerative diseases such as prion and Parkinson's disease. Acta Neuropathol. 125(6), 795-813 (2013).
- 2. Brendel, M., Deussing, M., Blume, T., et al. Late-stage Anle138b treatment ameliorates tau pathology and metabolic decline in a mouse model of human Alzheimer's disease tau. Alzheimers Res. Ther. 11(1), 67 (2019).
- 3. Heras-Garvin, A., Weckbecker, D., Ryazanov, S., et al. Anle138b modulates α-synuclein oligomerization and prevents motor decline and neurodegeneration in a mouse model of multiple system atrophy. Mov. Disord. 34(2), 255-263 (2019).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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