

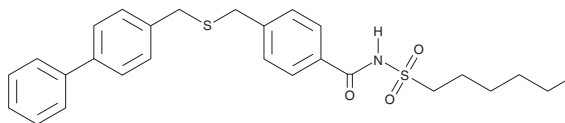
PRODUCT INFORMATION



KY-226

Item No. 43555

CAS Registry No.: 1621673-53-7
Formal Name: 4-[[[1,1'-biphenyl]-4-ylmethyl]thio]methyl]-N-(hexylsulfonyl)-benzamide
MF: C₂₇H₃₁NO₃S₂
FW: 481.7
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

KY-226 is supplied as a solid. A stock solution may be made by dissolving the KY-226 in the solvent of choice, which should be purged with an inert gas. KY-226 is soluble (≥10 mg/ml) in DMSO.

Description

KY-226 is an inhibitor of protein tyrosine phosphatase 1B (PTP1B; IC₅₀ = 0.28 μM).¹ It enhances insulin-induced phosphorylation of insulin receptors in HepG2 cells when used at concentrations of 1, 3, and 10 μM. *In vivo*, KY-226 (10 and 30 mg/kg) reduces plasma glucose and triglyceride levels and hemoglobin A1c (HbA1c) levels in *db/db* mice. It decreases body weight gain, food intake, and fat volume gain in a mouse model of high-fat diet-induced obesity when administered at 30 and 60 mg/kg per day for four weeks. Intraperitoneal administration of KY-226 (10 mg/kg) restores Akt phosphorylation and reduces cortical reactive oxygen species (ROS) production in a mouse model of ischemia-reperfusion injury induced by middle cerebral artery occlusion (MCAO).²

References

1. Ito, Y., Fukui, M., Kanda, M., *et al.* Therapeutic effects of the allosteric protein tyrosine phosphatase 1B inhibitor KY-226 on experimental diabetes and obesity via enhancements in insulin and leptin signaling in mice. *J. Pharmacol. Sci.* **137**(1), 38-46 (2018).
2. Sun, M., Izumi, H., Shinoda, Y., *et al.* Neuroprotective effects of protein tyrosine phosphatase 1B inhibitor on cerebral ischemia/reperfusion in mice. *Brain Res.* **1694**, 1-12 (2018).

WARNING

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

SAFETY DATA

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.

WARRANTY AND LIMITATION OF REMEDY

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