

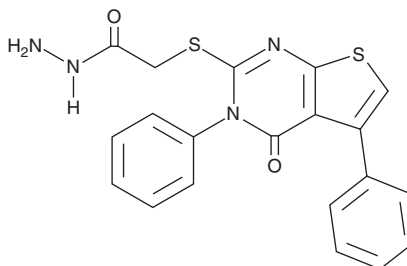
PRODUCT INFORMATION



LDN-27219

Item No. 32975

CAS Registry No.: 312946-37-5
Formal Name: 2-[(3,4-dihydro-4-oxo-3,5-diphenylthieno[2,3-d]pyrimidin-2-yl)thio]-acetic acid, hydrazide
MF: C₂₀H₁₆N₄O₂S₂
FW: 408.5
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

LDN-27219 is supplied as a solid. A stock solution may be made by dissolving the LDN-27219 in the solvent of choice, which should be purged with an inert gas. LDN-27219 is soluble in the organic solvent DMSO at a concentration of approximately 100 mM.

Description

LDN-27219 is an inhibitor of tissue transglutaminase 2 (TG2; IC₅₀ = 0.25 μM) that promotes its closed conformation.^{1,2} LDN-27219 induces relaxation of isolated rat mesenteric arteries precontracted with the thromboxane receptor agonist U-46619 (Item No. 16450) in a concentration-dependent manner, an effect that can be reduced by the nitric oxide synthase (NOS) inhibitor Nω-nitro-L-arginine.³ It also activates large-conductance calcium-activated potassium (K_{Ca}1.1/ BK_{Ca}) channels in isolated rat smooth muscle cells when used at a concentration of 30 μM. LDN-27219 (0.1, 1, and 2 mg/kg, i.v.) decreases blood pressure in anesthetized rats.

References

1. Duval, E., Case, A., Stein, R.L., *et al.* Structure-activity relationship study of novel tissue transglutaminase inhibitors. *Bioorg. Med. Chem. Lett.* **15(7)**, 1885-1889 (2005).
2. Case, A. and Stein, R.L. Kinetic analysis of the interaction of tissue transglutaminase with a nonpeptidic slow-binding inhibitor. *Biochemistry* **46(4)**, 1106-1115 (2007).
3. Pinilla, E., Comerma-Steffensen, S., Prat-Duran, J., *et al.* Transglutaminase 2 inhibitor LDN 27219 age-dependently lowers blood pressure and improves endothelium-dependent vasodilation in resistance arteries. *Hypertension* **77(1)**, 216-227 (2021).

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.

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