Thiosildenafil  
Item No. 13939

CAS Registry No.: 479073-79-5
Formal Name: 5-[2-ethoxy-5-[(4-methyl-1-piperazinyl)sulfonyl]phenyl]-1,6-dihydro-1-methyl-3-propyl-7H-pyrazolo[4,3-d]pyrimidine-7-thione
MF: C_{22}H_{30}N_{6}O_{3}S_{2}
FW: 490.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_{max} 226, 295, 354 nm

Laboratory Procedures

For long term storage, we suggest that thiosildenafil be stored as supplied at -20°C. It should be stable for at least two years.

Thiosildenafil is supplied as a crystalline solid. A stock solution may be made by dissolving the thiosildenafil in the solvent of choice. Thiosildenafil is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of thiosildenafil in these solvents is approximately 5 and 16 mg/ml, respectively.

Thiosildenafil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, thiosildenafil should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Thiosildenafil has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Sildenafil, marketed under the trade name Viagra™, is a potent cGMP-specific phosphodiesterase inhibitor that is highly selective for PDE5. While most notable for its use in the treatment of erectile dysfunction, sildenafil’s vasorelaxant properties have also been used to control vascular tone in pulmonary arterial hypertension and high-altitude pulmonary edema associated with altitude sickness.1,2 Thiosildenafil is a derivative of sildenafil that has been found as an adulterant in dietary supplements advertising sexual enhancement for men.3 The biological characteristics of thiosildenafil have not been reported.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/13939

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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