Data Sheet (Cat.No.T27541)

TargetMol

Hexylglutathione

Chemical Properties

CAS No. :	24425-56-7
Formula:	C16H29N3O6S
Molecular Weight:	391.48
Storage:	Keep away from moisture Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	S-Hexylglutathione is an S-substituted glutathione derivative, in which the hydrogen atom on the thiol group of glutathione is replaced by a hexyl group. It competitively inhibits glutathione-S-transferase and can also be used as an affinity chromatography ligand for glutathione-S-transferase and glutathione peroxidase.
Targets(IC50)	GST
In vitro	Methods: Affinity binding assays were used to determine the binding affinity of S-Hexylglutathione to human glutathione transferase P1-1 (wild-type and Y49F mutant). Results: S-Hexylglutathione can specifically bind to human glutathione transferase P1-1: 1.The dissociation constant Kd for the Y49F mutant was 3.7 μM. 2.The dissociation constant Kd for the wild type was 1.27 μM [1].

Solubility Information

Solubility	DMSO: 10 mg/mL (25.54 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5544 mL	12.772 mL	25.5441 mL
5 mM	0.5109 mL	2.5544 mL	5.1088 mL
10 mM	0.2554 mL	1.2772 mL	2.5544 mL
50 mM	0.0511 mL	0.2554 mL	0.5109 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ortiz-Salmerón E, et al. Thermodynamic description of the effect of the mutation Y49F on human glutathione transferase P1-1 in binding with glutathione and the inhibitor S-hexylglutathione. J Biol Chem. 2003 Nov 21;278 (47):46938-48.

Swope MD, et al. Macrophage migration inhibitory factor interactions with glutathione and S-hexylglutathione. J Biol Chem. 1998 Jun 12;273(24):14877-84.

Reinemer P, Dirr HW, Ladenstein R, Huber R, Lo Bello M, Federici G, Parker MW. Three-dimensional structure of class pi glutathione S-transferase from human placenta in complex with S-hexylglutathione at 2.8 A resolution. J Mol Biol. 1992 Sep 5;227(1):214-26. PubMed PMID: 1522586.

Kajihara-Kano H, Hayakari M, Satoh K, Tomioka Y, Mizugaki M, Tsuchida S. Characterization of S-hexylglutathione-binding proteins of human hepatocellular carcinoma: separation of enoyl-CoA isomerase from an Alpha class glutathione transferase form. Biochem J. 1997 Dec 1;328 (Pt 2):473-8. PubMed PMID: 9371703; PubMed Central PMCID: PMC1218943.