

Product Specification Sheet

Product Name: Lonidamine

Catalog Number: C5664

Technical information:

Chemical Formula: $C_{15}H_{10}Cl_2N_2O_2$

CAS #: 50264-69-2

Molecular Weight: 321.16

Purity: > 98%

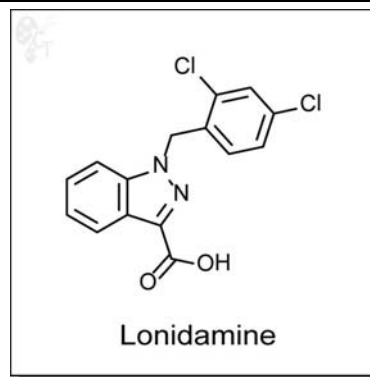
Appearance: white solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 1-(2,4-dichlorobenzyl)-1H-indazole-3-carboxylic acid

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.311mL of DMSO for each mg of Lonidamine.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Lonidamine is an orally-available, indazole-based inhibitor of glycolysis by the inactivation of hexokinase. Lonidamine is believed to increase apoptosis and in in vitro models has displayed markers of mitochondrial membrane depolarization, cytochrome C release, phosphatidylserine externalization, and DNA fragmentation. In support of apoptosis induction, caspase activity was found to be enhanced by Lonidamine in LNCaP cells. (1)

In separate studies, lonidamine was found to act of mitochondra to induce apoptosis by dissipating the inner transmembrane potential and the release of key apoptotic factors. (2)

- Reference:**
1. Brawer et al., Lonidamine: Basic Science and Rationale for Treatment of Prostatic Proliferative Disorders. Rev. Urol. 2005, 7, suppl. 7, S21-S26. Pubmed ID: 16986057
 2. Ravagnan et al., Lonidamine triggers apoptosis via a direct, Bcl-2-inhibited effect on the mitochondrial permeability transition pore. Oncogene, 1999, 18, 2537-2546. Pubmed ID: 10353597

To reorder: <http://www.cellagentech.com/Lonidamine/>
For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.