

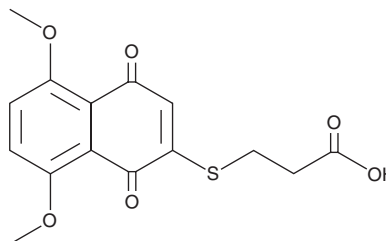
# PRODUCT INFORMATION



## GN25

Item No. 10948

**CAS Registry No.:** 1227401-27-5  
**Formal Name:** 3-[[1,4-dihydro-5,8-dimethoxy-1,4-dioxo-2-naphthalenyl]thio]propanoic acid  
**MF:** C<sub>15</sub>H<sub>14</sub>O<sub>6</sub>S  
**FW:** 322.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 241, 296, 442 nm  
**Supplied as:** A crystalline 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

GN25 is supplied as a crystalline solid. A stock solution may be made by dissolving the GN25 in the solvent of choice, which should be purged with an inert gas. GN25 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of GN25 in these solvents is approximately 0.25, 5, and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GN25 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of GN25 in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

The tumor suppressor gene, p53, is often mutated or suppressed in human cancers. Oncogenic K-Ras has been shown to inhibit p53 function by inducing Snail to bind and eliminate p53 through exocytosis. GN25 is a 2-thio-dimethoxy naphthoquinone analog that blocks Snail binding to p53 and induces p53 expression in cancer cells in a K-Ras dependent manner. At 10 μM, GN25 significantly reduces cell proliferation in K-Ras mutated A549 and HCT116 cell lines but not in wild type MKN-45 cells. In a xenograft mouse model, 10 mg/kg GN25 yields antitumoral effects by notably reducing tumor size and progression.<sup>1</sup>

### Reference

1. Lee, S.-H., Shen, G.-N., Jung, Y.S., *et al.* Antitumor effect of novel small chemical inhibitors of Snail-p53 binding in K-Ras-mutated cancer cells. *Oncogene* **29(32)**, 4576-4587 (2010).

#### 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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