

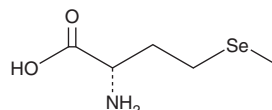
# PRODUCT INFORMATION



## L-Selenomethionine

Item No. 16005

**CAS Registry No.:** 3211-76-5  
**Formal Name:** 2S-amino-4-(methylseleno)-butanoic acid  
**Synonyms:** SEM, SeMet  
**MF:** C<sub>5</sub>H<sub>11</sub>NO<sub>2</sub>Se  
**FW:** 196.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 215 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

L-Selenomethionine (SeMet) is supplied as a crystalline solid. A stock solution may be made by dissolving the SeMet in water. The solubility of SeMet in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

SeMet, a naturally occurring amino acid, is the predominant form of selenium found in Brazil nuts, grains, soy beans, and legumes.<sup>1</sup> It promotes cell cycle progression and is known to elevate the expression of the antioxidant enzymes thioredoxin reductase, glutathione reductase, and glutathione peroxidase.<sup>2-4</sup> At 5 μM, SeMet has been shown to selectively induce apoptosis in LNCaP prostate cancer cells without affecting non-cancerous cells.<sup>5</sup>

### References

1. Schrauzer, G.N. Selenomethionine: A review of its nutritional significance, metabolism and toxicity. *J. Nutr.* **130(7)**, 1653-1656 (2000).
2. Zeng, H. Selenite and selenomethionine promote HL-60 cell cycle progression. *J. Nutr.* **132(4)**, 674-679 (2002).
3. El-Sayed, W.M., Aboul-Fadl, T., Roberts, J.C., *et al.* Murine hepatoma (Hepa1c1c7) cells: A responsive *in vitro* system for chemoprotective enzyme induction by organoselenium compounds. *Toxicol. In Vitro* **21(1)**, 157-164 (2007).
4. Jornot, L. and Junod, A.F. Differential regulation of glutathione peroxidase by selenomethionine and hyperoxia in endothelial cells. *Biochem. J.* **306(Pt 2)**, 581-587 (1995).
5. Stewart, J., Ware, J., Boysen, C., *et al.* Effects of selenomethionine on the gene expression profile of cloned human prostate cancer cells representing a phenotypic continuum of cancer progression. *Nutr. Cancer* **60(6)**, 826-836 (2008).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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