
Product Data Sheet

Product Name: p53 tumor suppressor fragment
 Cat. No.: GP10036

Chemical Properties

Cas. No.

SMILES NC(CCCCN)C(NC(CC1=CC=C(O)C=C1)C(NC(CCSC)C(NC(CS)C(NC(CC(N)=O)C(NC(CO)C(NC(CO)C(NC(CS)C(NC(CCSC)C(O)=O)=O)=O)

Formula C₄₁H₆₇N₁₁O₁₄S₄

M.Wt

1066.3

Solubility ≥ 53.3mg/mL in DMSO

Storage

Store at -20°C

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be tips several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.
 Condition

Structure

Background

p53 tumor suppressor fragment (232-240),(C₄₁H₆₇N₁₁O₁₄S₄), a peptide with the sequence H₂N-Lys-Tyr-Met-Cys-Asn-Ser-Ser-Cys-Met-OH, MW= 1066.3. p53 (also known as protein 53 or tumor protein 53), is a tumor suppressor protein that in humans is encoded by the *TP53* gene¹. p53 is crucial in multicellular organisms, where it regulates the cell cycle and, thus, functions as a tumor suppressor that is involved in preventing cancer. As such, p53 has been described as "the guardian of the genome" because of its role in conserving stability by preventing genome mutation². p53 has many mechanisms of anticancer function, and plays a role in apoptosis, genomic stability, and inhibition of angiogenesis. In its anti-cancer role, p53 works through several mechanisms: It can activate DNA repair proteins when DNA has sustained damage. It can induce growth arrest by holding the cell cycle at the G₁/S regulation point on DNA damage recognition. It can initiate apoptosis, the programmed cell death, if DNA damage proves to be irreparable³.

References:

1. Cho, Y.; Gorina, S.; Jeffrey, P. D.; Pavletich, N. P. (1994). "Crystal structure of a p53 tumor suppressor-DNA complex: Understanding tumorigenic mutations". *Science* 265 (5170): 346-355.
2. Read, A. P.; Strachan, T.. *Human molecular genetics 2*. New York: Wiley; 1999. ISBN 0-471-33061-2. Chapter 18: Cancer Genetics.
3. May P, May E. Twenty years of p53 research: structural and functional aspects of the p53 protein. *Oncogene*. 1999;18(53):7621-36.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA
