Inhibitors for Protein alpha-N-terminal Methyltransferases

Published date: May 22, 2018

Technology description

Background

Protein N-terminal methyltransferase 1 (NTMT1) plays an important role in regulating cell mitosis, chromatin interactions, and DNA repair. NTMT1 is over-expressed in cancer patient tissues including the head and neck, colorectal, malignant melanoma, compared to normal tissue. Knockdown of NTMT1 promotes hypersensitivity of breast cancer cell lines to double-strand DNA breaks (DSBs) by etoposide and gamma irradiation. This knowledge has made NTMT1 an important anticancer target. Currently, there are no specific cell-potent probes available for NTMT1. There is a need for a new technology that can target the NTMT1 protein.

Technology Summary

Researchers at Purdue University have developed new potent inhibitors for the protein NTMT. The inhibitor exhibited high selectivity to NTMT1/2 over a panel of 41 methyltransferases. These chemical compounds are novel because they are amenable for cell-based studies. They may be further optimized for animal studies. This technology is more stable and cell-permeable than existing solutions. This technology could open the door for elucidate the pharmacological functions of protein NTMT1.

Application area

Cell based studies
Animal studies

Advantages

Amenable for cell based studies
Displays selective inhibition for NTMT1
May be used for animal studies

Institution

Purdue University

Inventors

Guangping Dong
Rong Huang
Dongxing Chen

联系我们

叶先生

电 话：021-65679356

手 机：13414935137
邮 箱：yeyingsheng@zf-ym.com