Product Name: NSC348884

Revision Date: 6/30/2016

Product Data Sheet

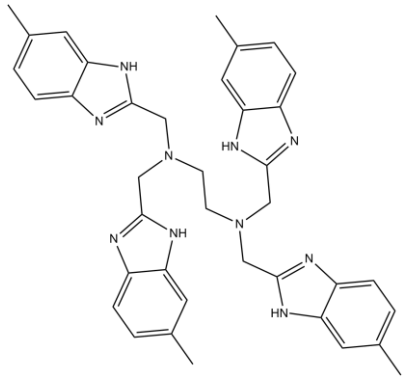
Chemical Properties

Product Name: NSC348884

Cas No.: 81624-55-7

M.Wt: 636.79

Formula: C38H40N10



Chemical Name: N1,N1,N2,N2-tetrakis((6-methyl-1H-benzo[d]imidazol-2-yl)methyl)ethane-1,2-diamine

Canonical SMILES: CC1=CC=C2N=C(CN(CC3=NC4=CC=C(C)C=C4N3)CCN(CC5=NC6=CC=C(C)C=C6N5)CC7=NC8=CC=C(C)C=C8N7)NC2=C1

Solubility: Soluble in DMSO

Storage: Store at -20°C

General tips: 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 stored below -20° C for several months.

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

Biological Activity

Targets : Apoptosis

Pathways: p53

Description:

IC50: 1.7-4.0 μM for tested cancer cell lines
NSC348884 is a nucleophosmin inhibitor.
Nucleophosmin is identified as a multifunctional nucleolar phosphoprotein, which is dysregulated in human malignancies resulting in anti-apoptosis and differentiation inhibition.

In vitro: NSC348884, which was identified as a putative nucleophosmin small molecular inhibitor, was found to be able to disrupt a hydrophobic pocket that was required for oligomerization, and NSC348884 could also inhibit the cell proliferation in distinct cancer cell lines and disrupt nucleophosmin oligomer formation. Moreover, the treatment of several cancer cell types with NSC348884 could dose-dependently upregulate p53 and also induce apoptosis that correlated with H2AX phosphorylation, poly(ADP-ribose) polymerase cleavage as well as Annexin V. Furthermore, NSC348884 could also synergize doxorubicin cytotoxicity on the viability of cancer cells [1].
In vivo: Previous study showed that the in-vivo intravasation and invasion could be significantly inhibited after the injection of NSC348884 into the tumor-bearing mice. In addition, there was no significant difference in overall cell death that was observed by histology in the treated tumors with the 4-hour brief treatments, indicating that the inhibition seen was specific to migration [2].
Clinical trial: Up to now, NSC348884 is still in the preclinical development stage.

***Reference**:*

[1] Qi W,Shakalya K,Stejskal A,Goldman A,Beeck S,Cooke L,Mahadevan D. NSC348884, a nucleophosmin inhibitor disrupts oligomer formation and induces apoptosis in human cancer cells. Oncogene.2008 Jul 10;27(30):4210-20.
[2] Patsialou A,Wang Y,Lin J,Whitney K,Goswami S,Kenny PA,Condeelis JS. Selective gene-expression profiling of migratory tumor cells in vivo predicts clinical outcome in breast cancer patients. Breast Cancer Res.2012 Oct 31;14(5):R139.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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