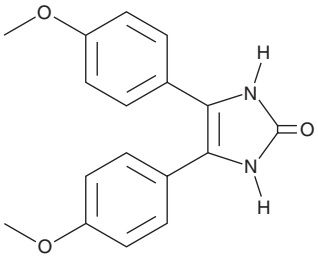
PRODUCT INFORMATION

P18IN003

Item No. 46505

CAS Registry No.:	71727-40-7
Formal Name:	1,3-dihydro-4,5-*bis*(4-methoxyphenyl)-2H-imidazol-2-one
MF:	$C_{17}H_{16}N_2O_3$
FW:	296.3
Purity:	≥98%
Supplied as:	A 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

P18IN003 is supplied as a solid. A stock solution may be made by dissolving the P18IN003 in the solvent of choice, which should be purged with an inert gas. P18IN003 is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

P18IN003 is an inhibitor of $p18^{INK4C}$.[1] It increases the number of cobblestone islands in long-term cultures of isolated mouse bone marrow nucleated cells (BMNCs), indicating an increase in the frequency of primitive hematopoietic cells, in a $p18^{INK4C}$-dependent manner. P18IN003 (20 nM) sensitizes $p16^{high}pRb^{high}$ patient-derived breast cancer cells to the cyclin-dependent kinase 4 (Cdk4) and Cdk6 inhibitor ribociclib (LEE011; Item No. 17666).[2] It has been used to promote the expansion of hematopoietic cells *in vitro* prior to competitive bone marrow transplant in mice.[1]

References

1. Gao, Y., Yang, P., Shen, H., *et al.* Small-molecule inhibitors targeting INK4 protein $p18^{INK4C}$ enhance *ex vivo* expansion of haematopoietic stem cells. *Nat. Commun.* **6,** 6328 (2015).
2. Palafox, M., Monserrat, L., Bellet, M., *et al.* Author correction: High p16 expression and heterozygous *RB1* loss are biomarkers for CDK4/6 inhibitor resistance in ER^+ breast cancer. *Nat. Commun.* **13(1),** 6928 (2022).

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
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