Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

KT 5720

Product overview

Name	KT 5720
Cat No	HB0361
Biological action	Inhibitor
Purity	>98%
Description	Potent, selective PKA inhibitor

Images

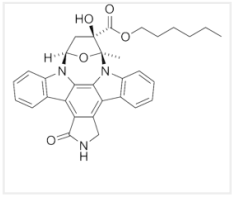
Biological Data

Biological description	Potent and selective protein kinase A inhibitor (K_i = 60 nM). Arrests skin fibroblasts in the G_1 stage. Reverses multi-drug resistance in leukaemia and attenuates hyperpolarization-activated cyclic nucleotide-gated (HCN) channels in the dorsal root ganglion (DRG). Cell-permeable.

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in DMSO and in methanol
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(9*R*,10*S*,12*S*)-2,3,9,10,11,12-Hexahydro-10-hydroxy-9-methyl-1-oxo-9,12-epoxy-1*H*-diindolo[1,2,3-*fg*:3',2',1'-*kl*]pyrrolo[3,4-*i*][1,6]benzodiazocine-10-carboxylic acid, hexyl ester
Molecular Weight	537.61
Chemical structure	

Molecular Formula	$C_{32}H_{31}N_3O_5$
CAS Number	108068-98-0
PubChem identifier	3844
SMILES	CCCCCCOC(=O)C1(CC2N3C4=CC=CC=C4C5=C6C(=C7C8=CC=CC=C8N(C7=C53)C1(O2)C)CN C6=O)O
InChi	InChI=1S/C32H31N3O5/c1-3-4-5-10-15-39-30(37)32(38)16-23-34-21-13-8-6-11-18(21)25-26-20(17-33-29(26)36)24-19-12-7-9-14-22(19)35(28(24)27(25)34)31(32,2)40-23/h6-9,11-14,23,38H,3-5,10,15 -17H2,1-2H3,(H,33,36)
InChiKey	ZHEHVZXPFVXKEY-UHFFFAOYSA-N
MDL number	MFCD00132118

References

K-252 compounds, novel and potent inhibitors of protein kinase C and cyclic nucleotide-dependent protein kinases.

Kase H *et al* (1987) Biochem Biophys Res Commun 142(2)
PubMedID 3028414

In vitro and in vivo reversal of MDR1-mediated multidrug resistance by KT-5720: implications on hematological malignancies.

Galski H *et al* (2006) Leuk Res 30(9)
PubMedID 16542724

Multiple kinase arrest points in the G1 phase of nontransformed mammalian cells are absent in transformed cells.

Gadbois DM *et al* (1992) Proc Natl Acad Sci U S A 89(18)
PubMedID 1528872

Novel role of KT5720 on regulating hyperpolarization-activated cyclic nucleotide-gated channel activity and dorsal root ganglion neuron excitability.

Cheng Q *et al* (2013) DNA Cell Biol 32(6)
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