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# DATASHEET

KT 5720

## Product overview

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

## Images

## Biological Data

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|---|---|
| **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

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| **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

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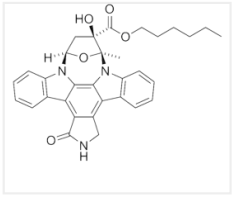
| **Chemical name** | (9*R*,10*S*,12*S*)-2,3,9,10,11,12-Hexahydro-10-hydroxy-9-methyl-1-oxo-9,12-epoxy-1*H*-diindolo[1,2,3-*fg*:3',2',1'-*kl*]pyrrolo[3,4-*i*][1,6]benzodiazocine-10-carboxylic acid, hexyl ester |
| **Molecular Weight** | 537.61 |
| **Chemical structure** |  |

| | |
|---|---|
| **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)
**PubMedID** 23713946