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|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Name</b>      | : KSP-IA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>          | : KSP-IA; KSP IA; KSPIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Cat No.</b>           | : M15425                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>CAS Number</b>        | : 639074-49-0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Formula</b> | : C <sub>21</sub> H <sub>22</sub> F <sub>2</sub> N <sub>2</sub> O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Formula Weight</b>    | : 356.42                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Chemical Name</b>     | : (S)-2-amino-1-((S)-4-(2,5-difluorophenyl)-2-phenyl-2,5-dihydro-1H-pyrrol-1-yl)-3-methylbutan-1-one                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>       | <p>A potent, specific, allosteric and cell-active inhibitor of KSP with IC<sub>50</sub> of 11 nM; has no inhibitory activity toward other kinesins, including CENP-E, MKLP-1, KIF-3A, and uKHC (IC<sub>50</sub>&gt;50 μM); induces the formation of monoastal spindles, causes mitotic arrest in a dose-dependent manner (EC<sub>50</sub>=30 nM) in A2780 ovarian carcinoma cells; sustained KSP inhibition activates the proapoptotic protein, Bax, and both activation of the spindle checkpoint and subsequent mitotic slippage are required for Bax activation.</p> |
| <b>Pathway</b>           | : Cytoskeleton/Cell Adhesion Molecules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Target</b>            | : Kinesin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Receptor</b>          | : Kinesin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Solubility</b>        | : —                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>SMILES</b>            | : <chem>CC(C)[C@H](N)C(=O)N1C=C(C=C1C2=CC=CC=C2)C=C(C3=CC(F)=CC=C3F)C1=O</chem>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage</b>           | : (-20°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Stability</b>         | : ≥ 2 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reference</b>         | :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

1. Tao W, et al. Cancer Cell. 2005 Jul;8(1):49-59.

