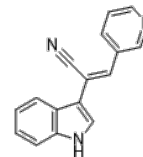


Product Name : Paprotrain
Cat. No. : PC-22648
CAS No. : 57046-73-8
Molecular Formula : C₁₆H₁₁N₃
Molecular Weight : 245.29
Target : Kinesin
Solubility : 10 mM in DMSO



Biological Activity

Paprotrain is a selective, reversible inhibitor of KIF20A (mitotic kinesin-like protein 2, MKLP-2, MKlp2) with K_i of 3.4 μ M, does not inhibit other members of the kinesin superfamily.

Paprotrain exhibits IC_{50} values of 1.35 μ M in basal and 0.83 μ M in MT-stimulated ATPase assays.

Paprotrain is cell permeable and incubation with 10 to 50 μ M inhibitor results in binucleated cells, a characteristic phenotype similar to that observed following RNAi-mediated depletion of MKLP-2.

Paprotrain induces mitotic spindle defects, perturbs MKLP-2-mediated relocation of the chromosome passenger proteins Aurora B and survivin from the centromeres to the central spindle.

Paprotrain does not impair kinesin family member 4 (Kif4)-mediated translocation of protein regulating cytokinesis 1 (PRC1), which emphasizes its specificity for MKLP-2.

References

Tcherniuk S, et al. Angew Chem Int Ed Engl. 2010 Oct 25;49(44):8228-31.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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