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Data Sheet

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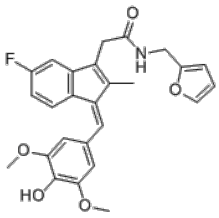
Product Name	:	ADT-007
Cat. No.	:	PC-21775
CAS No.	:	1945941-09-2
Molecular Formula	:	$C_{26}H_{24}FNO_5$
Molecular Weight	:	449.48
Target	:	Ras
Solubility	:	10 mM in DMSO



CAS: 1945941-09-2

Biological Activity

ADT-007 (ADT007) is a potent, specific **pan-RAS** inhibitor, shows potential to circumvent resistance to mutant-specific KRAS inhibitors and activates antitumor immunity.
ADT-007 displays high potency and selectivity to inhibit the growth of KRAS G13D HCT-116 cells with an IC50 of 5 nM, 100 fold less sensitive to RAS WT HT-29 cells.
ADT-007 displays potency in KRAS G12C MIA PaCa-2 PDA cells, resulting in IC50 values as low as 2 nM and a selectivity index approaching 1200-fold relative to RAS WT BxPC-3 PDA cells.
ADT-007 also potently inhibits the growth of three other mutant KRAS PDA cell lines with G12V or G12D mutations.
ADT-007 suppresses MIA PaCa-2 cells growth in 2D monolayer and 3D spheroid cultures with IC50 values of 2.1 and 3.3 nM, respectively.
ADT-007 completely inhibits colony formation of PDA cell lines with G12C, G12D, and G12V KRAS mutations, whereas colony formation of RASWT 136 BxPC-3 cells is not significantly affected.
ADT-007 inhibits activated RAS and downstream MAPK/AKT signaling in human CRC and PDA cell lines.
ADT-007 exhibited 10x greater potency than AMG-510 in growth assays involving parental mutant KRAS G12C MIA PaCa-2 cells, also potently inhibits Lewis lung cancer (LLC) cells (NRAS Q61H) growth with IC50 of 9 nM.
ADT-007 preferentially binds nucleotide-free RAS, inhibit RAS-driven cancer cell growth, activated RAS levels, and MAPK/AKT signaling.

References

Jeremy B Foote, et al. ***bioRxiv.*** 2024 Jan 24:2023.05.17.541233.

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