

Dual DNA-PK/PI3K inhibitor KU-0060648 Small Molecule (Tool Compound)

Catalogue number: 152709

Sub-type: Inhibitor

Images:

Contributor

Inventor: Laurent Rigoreau

Institute: Newcastle University

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Dual DNA-PK/PI3K inhibitor KU-0060648 Small Molecule (Tool Compound)

Alternate name:

Class:

Conjugate:

Description: KU-0060648 is a dual PI3-K and DNA-PK inhibitor (IC50 values are **Purpose:** Inhibitor

Parental cell:

Organism:

Tissue:

Model:

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details:

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target:

Target alternate names:

Target background:

Molecular weight: 582.71

IC50: inhibitor of DNA-PK and PI3K α , PI3K β , PI3K γ with IC50 of 8.6 nM and 4 nM, 0.5 nM, 0.1 nM respectively, less inhibition of PI3K δ with IC50 of 0.59 μ M.

Applications

Application: KU-0060648 enhances the anti-tumour activity of etoposide in both MCF7 and SW620 xenograft models, and has single-agent activity in the MCF7 xenograft model. KU-0060648 exhibits differential effects on growth inhibition, but is not profoundly cytotoxic in a panel of human cancer cell lines. It inhibits DNA-PK and PI-3K with greater potency in MCF7 than SW620 cell using cell-based assays. Five-day exposure to 1 mM KU-0060648 inhibits cell proliferation by more than 95% in MCF7 cells but only b...

Application notes:

Handling

Format:

Concentration:

Passage number:

Growth medium:

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions: Store at -20° C

Shipping conditions: Dry Ice

Related tools

Related tools:

References

References: Ovarian cancer cell line panel (OCCP): clinical importance of in vitro morphological subtypes. ; Beaufort et al. 2014. PLoS One. 9(9):e103988. PMID: 25230021. ; Marcotte et al. 2012. Cancer Discov. 2(2):172-189. PMID: 22585861. ; Rothenberg et al. 2010. Cancer Res. 70(6):2158-64. PMID: 20215515. ; Masuda et al. 1988. Cancer Res. 48(20):5713-6. PMID: 3139281. ; Increased DNA repair as a mechanism of acquired resistance to cis-diamminedichloroplatinum (II) in human ovarian cancer cell lines. ; Behrens et al. 1987. Cancer Res. 47(2):414-8. PMID: 3539322. ; Characterization of a cis-diamminedichloroplatinum(II)-resistant human ovarian cancer cell line and its use in evaluation of platinum analogues.

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