HiPub (http://hipub.korea.ac.kr) installation

- Install Chrome browser: https://www.google.com/chrome/browser/desktop/
- Install the HiPub plugin: https://chrome.google.com/webstore/detail/hipub/jlbmiklekmigmbmcodhjgdpooldjcjam
- Test installation: https://www.ncbi.nlm.nih.gov/pubmed/24009732
  - You should see an annotated title and abstract when you go to the PubMed page above as shown on the next slide

Format: Abstract Send to

PLoS One. 2013 Aug 29;8(8):e73059. doi: 10.1371/journal.pone.0073059. eCollection 2013.

The conformational control inhibitor of tyrosine kinases DCC-2036 is effective for imatinib-resistant cells expressing T674I FIP1L1-PDGFRα.

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Author information

Abstract

The cells expressing the T674I point mutant of FIP1-like-1-platelet-derived growth factor receptor alpha (FIP1L1-PDGFRα) in hypereosinophilics syndrome (HES) are resistant to imatinib and some second-generation tyrosine kinase inhibitors (TKIs). There is a desperate need to develop therapy to combat this acquired drug resistance. DCC-2036 has been synthesized as a third-generation TKI to combat especially the Bcr-Abl T315I mutant in chronic myeloid leukemia. This study evaluated the effect of DCC-2036 on FIP1L1-PDGFRα-positive cells, including the wild type (WT) and the T674I mutant. The in vitro effects of DCC-2036 on the PDGFRα signal pathways, proliferation, cell cycling and apoptosis of FIP1L1-PDGFRα-positive cells were investigated, and a nude mouse xenograft model was employed to assess the in vivo antitumor activity. We found that DCC-2036 decreased the phosphorylated levels of PDGFRα and its downstream targets without apparent effects on total protein levels. DCC-2036 inhibited proliferation, and induced apoptosis with MEK-dependent up-regulation of the pro-apoptotic protein Bim in FIP1L1-PDGFRα-positive cells. DCC-2036 also exhibited in vivo antineoplastic activity against cells with T674I FIP1L1-PDGFRα. In summary, FIP1L1-PDGFRα-positive cells are sensitive to DCC-2036 regardless of their sensitivity to imatinib. DCC-2036 may be a potential compound to treat imatinib-resistant HES.

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[Indexed for MEDLINE] Free PMC Article

xMWAS (https://github.com/kuppal2/xMWAS) installation

- Install R: https://cran.cnr.berkeley.edu/
- Install R package devtools
  - R command for installation:

    install.packages("devtools")
- Install R package xMWAS
  - R command for installation:

    library(devtools); install_github("kuppal2/xMWAS")
- Test installation:
  - R command for loading the package:

    library(xMWAS)