



UNIVERSITÀ DEGLI STUDI
MAGNA GRÆCIA DI CATANZARO



DOTTORATO DI RICERCHE
IN SCIENZE DELLA VITA

UNIVERSITÀ DEGLI STUDI MAGNA GRÆCIA DI CATANZARO

- DIPARTIMENTO DI SCIENZE DELLA SALUTE -

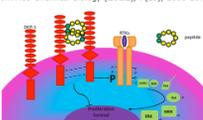
- DOTTORATO DI RICERCHE IN SCIENZE DELLA VITA -

WEBEX SU SCIFINDER N - CAS

CORSO CV_ALL_001

References and Reports

40. Isolation and Functional Characterization of Peptide Agonists of PTPRJ, a Tyrosine Phosphatase Receptor Endowed with Tumor Suppressor Activity



PTPRJ is a receptor-type protein tyrosine phosphatase whose expression is strongly reduced in the majority of investigated cancer cell lines and tumor specimens. PTPRJ neg. interferes with mitogenic signals originating from several oncogenic receptor tyrosine kinases, including HGF, PDGFR, RET, and VEGFR-2. Here we report the isolation and characterization of peptides from a random peptide phage display library that bind and activate PTPRJ. These agonist peptides, which are able to both circularize and form dimers in aqueous soln., were assayed for their biochem. and biol. activity on both human cancer cells and primary endothelial cells (HeLa and HUVEC, resp.). Our results demonstrate that binding of PTPRJ-interacting peptides to cell cultures dramatically reduces the extent of both MAPK phosphorylation and total phosphotyrosine levels; conversely, they induce a significant increase of the cell cycle inhibitor p27^{ras}. Moreover, PTPRJ agonist peptides both reduce proliferation and trigger apoptosis of treated cells. Our data indicate that peptide agonists of PTPRJ pos. modulate the PTPRJ activity and may lead to novel targeted anticancer therapies.

Patents

Chemical Substance Data

CAS Registry Number 1258226-87-7

C₂₆H₂₉N₅O₈

L-Prolinamide, 2,2'-[[[(2,5,5,5-tetramethyl-1,4-dihydro-1H-pyridin-2-ylidene)bis(4,1-phenylene)]bis(4-methoxycarbonyl)-L-valyl-]

Molecular Weight
894.11

Boiling Point (Predicted)
Value: 1065.6±65.0 °C | Condition: Press: 760 Torr

Density (Predicted)
Value: 1.223±0.06 g/cm³ | Condition: Temp: 20 °C Press: 760 Torr

pKa (Predicted)
Value: 10.92±0.46 | Condition: Most Acidic Temp: 25 °C

Other Names
2,2'-[[[(2,5,5,5-tetramethyl-1,4-dihydro-1H-pyridin-2-ylidene)bis(4,1-phenylene)]bis(4-methoxycarbonyl)-L-valyl-L-prolinamide]

ABT 267

Ombitasvir

Technivie

Viekira Pak

Expand All Collapse All	
• PREDICTED PROPERTIES	
• PREDICTED SPECTRA	
• REGULATORY INFORMATION	
• BIOACTIVITY INDICATORS	
• TARGET INDICATORS	
• CAS REFERENCE ROLES	
• ADDITIONAL DETAILS	

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CAMPUS UMG DI CATANZARO – EDIFICIO DELLE BIOSCIENZE

AULA G 4 – LIVELLO 0 – 14 FEBBRAIO 2020 ORE 14:30

HOST: STEFANO ALCARO alcaro@unicz.it

SEMINARIO APERTO A DOCENTI, ASSEGNISTI, SPECIALIZZANDI E DOTTORANDI