Access byCAS - National Science Library

The full text of this article hosted at iucr.org is unavailable due to technical difficulties.

Bulletin of the Korean Chemical Society

Volume 38, Issue 1

Article

The Discovery of Novel Protein Tyrosine Phosphatase ÃƒÂŽÃ‚Âµ Inhibitors Using a HighÃƒÂ¢Ã‚Â€Ã‚Â•throughput Screening Approach

HyeÃƒÂ¢Ã‚Â€Ã‚Â•Yeoung Yun

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Â€Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

Bonsu Ku

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Â€Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

Hye Seon Lee

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Search for more papers by this author

HoÃƒÂ¢Ã‚Â€Ã‚Â•Chul Shin

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Search for more papers by this author

JunÃƒÂ¢Ã‚Â€Ã‚Â•Beom Park

Department of Periodontics, Seoul St Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

Search for more papers by this author

Chang Hyen Kim

Corresponding Author

E-mail address:omfskim1@catholic.ac.kr

Department of Oral and Maxillofacial Surgery, Seoul St Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

Search for more papers by this author

Seung Jun Kim

Corresponding Author

E-mail address:ksj@kribb.re.kr

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Â€Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

HyeÃƒÂ¢Ã‚Ã‚Â•Yeoung Yun

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

Bonsu Ku

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

Hye Seon Lee

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Search for more papers by this author

HoÃƒÂ¢Ã‚Ã‚Â•Chul Shin

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Search for more papers by this author

JunÃƒÂ¢Ã‚Ã‚Â•Beom Park

Department of Periodontics, Seoul St Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

Search for more papers by this author

Chang Hyen Kim

Corresponding Author

E-mail address:omfskim1@catholic.ac.kr

Department of Oral and Maxillofacial Surgery, Seoul St Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

Search for more papers by this author

Seung Jun Kim

Corresponding Author

E-mail address:ksj@kribb.re.kr

Disease Target Structure Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

Department of BioÃƒÂ¢Ã‚Â€Ã‚Â•Analytical Science, University of Science and Technology, Daejeon, Republic of Korea

Search for more papers by this author

First published: 09 January 2017

https://doi.org/10.1002/bkcs.11044

Share a link

- Email to a friend
- Facebook
- Twitter
- Linkedin
- Google+
- Reddit
- CiteULike

Abstract

Protein tyrosine phosphatase epsilon (PTPÃƒÂŽÃ‚Âµ) is important for signal transduction in osteoclasts, and is considered to be an attractive drug target for the treatment of osteoporosis. We identified 11 potent PTPÃƒÂŽÃ‚Âµ inhibitors based on three chemical scaffolds through the highÃƒÂ¢Ã‚€Ã‚•throughput screening of a chemical library. As these compounds are structurally diverse with high bioavailability, they warrant further investigation in the near future. The discovery of these inhibitors and the relationship between their structure and inhibitory activity toward PTPÃƒÂŽÃ‚Âµ is discussed in detail.

Citing Literature

Number of times cited: 1

- Bonsu Ku, Hye-Yeoung Yun, Kyung Won Lee, Ho-Chul Shin, Sang-Rae Lee, Chang Hyen Kim, Hwangseo Park, Kyu Yang Yi, Chang Hoon Lee and Seung Jun Kim, Identification of N-(5-(phenoxymethyl)-1,3,4-thiadiazol-2-yl)acetamide derivatives as novel protein tyrosine phosphatase epsilon inhibitors exhibiting anti-osteoclastic activity, *Bioorganic & Medicinal Chemistry*, 10.1016/j.bmc.2018.09.022, **26**, 18, (5204-5211), (2018).
  Crossref

Volume38, Issue1

January 2017

Pages 44-53

- Related
- Information

Caption

Additional links

About Wiley Online Library

- Privacy Policy
- Terms of Use
- Cookies
- Accessibility

Help & Support

- Contact Us

Opportunities

- Subscription Agents
- Advertisers & Corporate Partners

Connect with Wiley

- The Wiley Network
- Wiley Press Room

Log in to Wiley Online Library

NEW USER > INSTITUTIONAL LOGIN >

Change Password

Congrats!

Your password has been changed

Create a new account

Returning user

Forgot your password?

Enter your email address below. If your address has been previously registered, you will receive an email with instructions on how to reset your password. If you don't receive an email, you should register as a new user

Please check your email for your password reset instructions.

Request Username

Can't sign in? Forgot your username?

Enter your email address below and we will send you your username

If the address matches an existing account you will receive an email with instructions to retrieve your

username

if(window._satellite) { _satellite.pageBottom(); }

var _prum=[['id','59e8fecb3847311aab7b23c6'],['mark','firstbyte',(new Date()).getTime()]];(function(){var s=document.getElementsByTagName('script')[0],p=document.createElement('script');p.async='async';p.src='//rum-static.pingdom.net/prum.min.js';s.parentNode.insertBefore(p,s);})();