Pseudochelin A, a siderophore of Pseudoalteromonas piscicida S2040

A new siderophore containing a 4,5-dihydroimidazole moiety was isolated from Pseudoalteromonas piscicida S2040 together with myxochelins A and B, alteramide A and its cycloaddition product, and bromo- and dibromoalterochromides. The structure of pseudochelin A was established by spectroscopic techniques including 2D NMR and MS/MS fragmentation data. In bioassays selected fractions of the crude extract of S2040 inhibited the opportunistic pathogen Pseudomonas aeruginosa. Pseudochelin A displayed siderophore activity in the chrome azurol S assay at concentrations higher than 50 μM, and showed weak activity against the fungus Aspergillus fumigatus, but did not display antibacterial, anti-inflammatory or anticonvulsant activity.

General information
State: Published
Organisations: Department of Biotechnology and Biomedicine, Bacterial Ecophysiology and Biotechnology, University of Aberdeen, UIT The Arctic University of Norway, Fundación MEDINA, KU Leuven, University of Coimbra
Pages: 2633-2637
Publication date: 2017
Peer-reviewed: Yes

Publication information
Journal: Tetrahedron
Volume: 73
Issue number: 18
ISSN (Print): 0040-4020
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 2.33 SJR 0.8 SNIP 0.679
Web of Science (2017): Impact factor 2.377
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.54 SJR 0.91 SNIP 0.743
Web of Science (2016): Impact factor 2.651
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 2.72 SJR 0.941 SNIP 0.83
Web of Science (2015): Impact factor 2.645
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 2.79 SJR 0.972 SNIP 0.888
Web of Science (2014): Impact factor 2.641
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 2.85 SJR 1.106 SNIP 0.91
Web of Science (2013): Impact factor 2.817
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 2.89 SJR 1.329 SNIP 0.99
Web of Science (2012): Impact factor 2.803
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 3.22 SJR 1.473 SNIP 1.065
Web of Science (2011): Impact factor 3.025
ISI indexed (2011): ISI indexed yes