Japan

HAN-P-10

Hideaki Kakeya

Professor, Kyoto Univerisity
Email: hkakeya@pharm.kyoto-u.ac.jp

Website	https://www.pharm.kyoto-u.ac.jp/sc-molsci/indexen.html
Research Field(s)	Natural Product Chemistry, Chemical Biology, Medicinal Chemistry

Academic Career

B.S., 1989, Keio University; Ph.D., 1994, Keio University (advisor: Kazuo Umezawa); 1994-2007, Research Scientist/Senior Scientist, RIKEN; 2007-present, Kyoto University.1995, Visiting Scientist, U.C. Davis; 1998-2000, Visiting Scientist, M.I.T.; 2009, Visiting Professor, University of Louis Pasteur, Strasbourg; 2007-present, Visiting scientist, RIKEN.

Selected Publications

1. Kaneko, K., Kakeya, H, et al. Tumescenamide C, a cyclic lipodepsipeptide from Streptomyces sp. KUSC_F05, exerts antimicrobial activity against the scab-forming actinomycete Streptomyces scabiei. J. Antibiot. 77, 353-364, 2024.

2. Iseki, S., Kakeya, H. et al. Teleocidin B-4, a PKC activator, upregulates hypoxia-inducible factor 1 (HIF-1) activity by promoting the accumulation of HIF-1α protein via the PKCα/mTOR signaling pathway. J. Nat. Prod. 87, 1666-1671, 2024.

3. Pan, C., Kakeya, H., et al. Amoxetamide A, a new anoikis inducer, produced by combined-culture of Amycolatopsis sp. and Tsukamurella pulmonis. J. Antibiot. 77, 66-70, 2024.

4. Pan, Y., Kakeya, H. et al. Bisabosqual A: a novel asparagine synthetase inhibitor suppressing the proliferation and migration of human non-small cell lung cancer A549 cells. Eur. J. Pharmacol. 960, 176156, 2023.

5. Ozaki, M., Kakeya, H. et al. Separation of amyloid β fragment peptides with racemised and isomerised aspartic acid residues using an original chiral resolution labeling reagent. Analyst, 148, 1209-1213, 2023.

6. Ikeda, H., Kakeya, H. et al. Identification of the polyether ionophore lenoremycin through a new screening strategy targeting cancer stem cells. J. Antibiot. 75, 671-678, 2022.

7. Kuranaga, T., Kakeya, H. et al. Highly sensitive labeling reagents for scarce natural products. ACS Chem. Biol. 15, 2499-2506, 2020.

8. Kakeya, H. Natural products-prompted chemical biology: Phenotypic screening and a new platform for target identification. Nat. Prod. Rep. 33, 648-654, 2016.

Why My Lab?

My lab can offer labeling reagents of amino acids, short peptide fragments, and scarce natural products, as well as a chemical genetic approach for targeting molecular target(s) of small/medium-sized molecules.