

Microbial natural product library

Catalog No: #L6500

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Description

Product Name	Microbial natural product library
Brief Description	<p>Microscopic organisms, commonly known as microorganisms or microbes, are found all around us and even inside our bodies, including a massive range of organisms including bacteria, fungi, viruses, algae, archaea and protozoa. The vast majority of microbes on the earth pose no real threat to humans, plants or animals; in fact they actually work alongside humans to make world go round, aiding decomposition, decay and even helping us to digest our food. Microorganisms are renowned as a prolific source of natural products, making huge contribution to human health. The 1945 and 1952 Nobel Prizes in Physiology or Medicine were awarded for the discovery of penicillin and streptomycin, respectively. Six years later, the 2015 Nobel Prize in Physiology or Medicine was awarded to William C. Campbell and Satoshi Omura, and Youyou Tu for the discovery of avermectins and artemisinin, respectively, therapies that revolutionized the treatment of devastating parasite diseases. Among these four natural products awarded with Nobel Prizes, except for artemisinin, the other three all are microbial natural products. Streptomyces is the important source for natural medicines, the largest antibiotic-producing genus, producing antibacterial (vancomycin and daptomycin, etc.), antifungal (nystatin, amphotericin B, and natamycin), and antiparasitic drugs (Ivermectin), and also a wide range of other bioactive compounds used in other medical treatment, such as anti-cancer drugs (dactinomycin and bleomycin).</p> <p>Microbial Natural Product Library is a unique collection of 155 microbial natural products covering various chemical structures, such as α-lactam, macrolides, aminoglycoside, polypeptides, Chloramphenicol, Tetracycline compounds, Anthraquinone, Benzene derivatives, quinone, Terpenoids, etc. This library can be used in rational drug design, virtual screening, and microbes classification, etc.</p>
Storage	<p>Powder or pre-dissolved DMSO solutions in 96 well plate with optional 2D barcode</p> <p>Shipped with dry ice.</p>

Application Details

Number of Compounds: 155

Product Description

A unique collection of 155 microbial natural products for high throughput screening (HTS) and high content screening (HCS); Targets include alpha-glucosidase, beta-lactamase, TNF-alpha, HDAC, PKC, HSP90, etc.; Safety and effectiveness of the small molecules have been demonstrated through preclinical and clinical research; Detailed compound information with structure, target, activity, IC50 value, and biological activity description; Structurally diverse, medicinally active, and cell permeable; NMR and HPLC/LCMS validated to ensure high purity and quality

Note: This product is for in vitro research use only