VENOMTECH®
Drug Discovery Solutions™

Target:	**Antibacterial**
Format:	**Targeted Venom Discovery Array**
Code:	**T-VDA^{bacterial}**

Product Description

With antibiotic resistance a significant global problem, venoms are proving a rich source of new molecules to help combat this threat. The antibacterial Targeted Venom Discovery Array (T-VDA™) is specifically designed to maximise discovery of new tools as **novel antibacterial peptides and proteins** have been found in snake, spider and scorpion venoms. These targeted arrays contain pure venom fractions from 12, 24, 48 or 96 species optimised for identification of novel antibacterials. Each array contains characterised venoms **active on microbial growth and survival** from the literature to act as positive controls. The control venoms for T-VDA^{bacterial} include *Naja kaouthia* (monocled cobra) as well as many other snake venom proteins such as **phospholipase A2** and **L-amino acid oxidase**, which have been shown to be **bacteriocidal**[1]; *Pandinus imperator* (emperor scorpion) where several antimicrobial peptides have been discovered[2]; and *Grammostola spatuala* (Chilean rose tarantula) **containing antibacterial GsMTX4**[3]. The other venom fractions making up the library have been specially selected by our drug discovery scientists to maximise the novel hit potential.

- Venoms are supplied lyophilised in Echo® qualified acoustic source plates (Labcyte Inc) and are useable on any SBS footprint liquid handling device or by hand.
- 384-well format has 200ng venom fraction per well, suggested dilution 20µl as hit fractions are typically active at 5µg/ml and below.
- 1536-well format also available.

1. Samy RP, Stiles BG, Gopalakrishnakone P, Chow VT. (2011). Antimicrobial proteins from snake venoms: direct bacterial damage and activation of innate immunity against *Staphylococcus aureus* skin infection. Curr. Med. Chem. 18(33):5104-13
2. Zeng XC, Zhou L, Shi W, Luo X, Zhang L, Nie Y, Wang J, Wu S, Cao B, Cao H. (2013). Three new antimicrobial peptides from the scorpion *Pandinus imperator*. Peptides. 45C:28-34
3. Jung HJ, Kim PI, Lee SK, Lee CW, Eu YJ, Lee DG, Earm YE, Kim JI. (2006) Lipid membrane interaction and antimicrobial activity of GsMTx-4, an inhibitor of mechanosensitive channel. Biochem. Biophys. Res. Commun. 10;340(2):633-8. Epub 2005 Dec 19.

Data compiled from UniProt: Reorganizing the protein space at the Universal Protein Resource (UniProt), Nucleic Acids Res. 40: D71-D75 (2012).

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