TOXIVEN BIOTECH PRIVATE LIMITED

Target:	Kinases
Format:	Targeted Venom Discovery Array
Code:	T-VDA^{Kinase}

Product Description

Kinases are prime drug targets for a wide range of disease areas including neurology, ophthalmology and oncology. Venoms are proving a rich source of new molecules to meet the need for novel approaches to targeting these useful mechanisms. The kinase Targeted Venom Discovery Array (T-VDA™) is specifically designed to maximise discovery of new tools. Research has been published on **novel peptides and proteins** with **kinase activity**[1] found in snake venoms, and our own research has identified several key invertebrate venoms (due to be published shortly). These targeted arrays contain pure venom fractions from 12, 24, 48 or 96 species optimised for identification of novel kinase activity. Each array contains characterised venoms with **kinase binding activity** from the literature to act as positive controls. The control venoms for T-VDA^{Kinase} include *Naja atra*(Chinese cobra),which contains unique **three finger neurotoxins** that bind **Protein Kinase C**[1]; and *Deinagkistrodon acutus*(hundred pace pit viper) venom, which contains snaclec agglucetin, a lectin that signals through phosphatidylinositol 3-kinase(PI3K)2.With our collaborators we have strong evidence for several scorpion and theraphosid (tarantula) venoms signalling through other kinases. This data is currently being written up for publication. 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. Chiou SH1, Raynor RL, Zheng B, Chambers TC, Kuo JF.(1993). Cobra venom cardiotoxin (cytotoxin) isoforms and neurotoxin: comparative potency of protein kinase C inhibition and cancer cell cytotoxicity and modes of enzyme inhibition. Biochemistry. 2;32(8):2062-7.
2. Wang WJ.(2008).Agglucetin, a tetrameric C-type lectin-like venom protein, regulates endothelial cell survival and promotes angiogenesis by activating integrin alphavbeta3 signaling. Biochem.Biophys.Res. Commun. 2;369(2):753-60.

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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