TOXIVEN BIOTECH PRIVATE LIMITED

Target:	Calcium Channels
Format:	Targeted Venom Discovery Array
Code:	T-VDA^{Ca2+}

Product Description

The **calcium (Ca2+) channel Targeted Venom Discovery Array™ (T-VDA^{Ca2+})** is specifically designed to maximise discovery of new tools. Ca^{2+}channels are important drug targets for a range of **neurological disorders**, specifically **pain.** Venoms from theraphosids (tarantulas), scorpions and snakes are rich sources of new Ca channel tools. These targeted arrays contain pure venom fractions from 12,24, 48 or 96 species **optimised for identification of novel tools**. Each array contains characterised venoms active on calcium channels from the literature to act as positive controls. The control venoms for T-VDA^{Ca2+}include *Parabuthus transvaalicus* (SouthAfrican fattail scorpion) which contains **Kurtoxin** with broad spectrum calcium channel activity L,T,N and P type channels[1]; *Dendroaspis angusticeps* (Eastern green mamba) venom which contains **Calcicludin**,a potent L-type calcium channel blocker[2]; and *Hysterocrates gigas* (Cameroon red baboon tarantula) venom which blocks N and E type calcium currents[3]. Other venom fractions making up the library have been specially selected by our drug discovery scientists to maximise 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. Chuang R.S.-I., Jaffe H., Cribbs L., Perez-Reyes E., Swartz K(1998).Inhibition of T-type voltage-gated calcium channels by a new scorpion toxin. J.Nat. Neurosci. 1:668-6742.
2. Schweitz H., Heurteaux C., Bois P., Moinier D., Romey G., Lazdunski M.(1994).Calcicludine, a venom peptide of the Kunitz-type protease inhibitor family, is a potent blocker of high-threshold Ca2+ channels with a high affinity for L-type channels in cerebellar granule neurons. Proc. Natl. Acad. Sci. U.S.A. 91:878-8823.
3. Newcomb R., Szoke B., Palma A., Wang G., Chen X.H., Hopkins W., Cong R., Miller J., Urge L., Tarczy-Hornoch K., Loo J.A., Dooley D.J., Nadasdi L., Tsien R.W., Lemos J., Miljanich G.(1998).Selective peptide antagonist of the class E calcium channel from the venom of the tarantula Hysterocrates gigas.Biochemistry 37:15353-15362

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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