VENOMTECH®
Drug Discovery Solutions™

Target:	**Acid Sensing Ion Channels**
Format:	**Targeted Venom Discovery Array**
Code:	**T-VDA^{ASIC}**

Product Description

The **ASIC (Acid Sensing Ion Channel) Targeted Venom Discovery Array™ (T-VDA^{ASIC})** is specifically designed to maximise discovery of new tools. ASIC channels are important drug targets for **neurological disorders**, specifically **pain**. ASIC channel tools from theraphosids (tarantulas) and snakes are the most potent and selective agents currently known. 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 at ASIC channels from the literature to act as positive controls. The control venoms for T-VDA^{ASIC} include *Psalmopoeus cambridgei* (Trinidad chevron tarantula) which contains **Psalmotoxin**, a selective blocker of ASIC1a channels[1]; *Dendroaspis polylepis* (Black mamba) venom which contains **Mambalgins** that block ASIC1a/2a heteromers[2]; and *Dendroaspis angusticeps* (Eastern green mamba) venom which contains mambalgin-3 that blocks ASIC1a and ASIC1b channels as well as 1a/2b heteromers[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. Escoubas P., de Weille J.R., Lecoq A., Diochot S., Waldmann R., Champigny G., Moinier D., Menez A., Lazdunski M. (2000). Isolation of a tarantula toxin specific for a class of proton-gated Na+ channels. J. Biol. Chem. 275:25116-25121
2. Diochot S., Baron A., Salinas M., Douguet D., Scarzello S., Dabert-Gay A.-S., Debayle D., Friend V., Alloui A., Lazdunski M., Lingueglia E. (2012). Black mamba venom peptides target acid-sensing ion channels to abolish pain. Nature 490:552-555
3. Schweitz H., Diochot S., Baron A., Salinas M., Lingueglia E. (2013). Venom toxins in the exploration of molecular, physiological and pathophysiological functions of acid-sensing ion channels. Submitted (FEB-2013) to UniProtKB C0HJB0

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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