

VENOMTECH[®]

Venom Research Solutions[™]



Do you need novel biologicals?



We hold the key...



Introducing Targeted Venom Discovery Arrays (T-VDA[™])

Unique venom libraries for YOUR drug discovery programmes



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- T-VDA^{ASIC} – Acid sensing ion channel modulator library ————— **Neuroscience**
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- T-VDA^{Insect} – Insecticide library
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- T-VDA^{GPCR} – G-protein coupled receptors library
- T-VDA^{S100} – S100 proteins
- T-VDA^{HTLS} – Hit-to-lead service

Unlock millions of years of evolution...

The **Targeted Venom Discovery Array (T-VDATM)** is specifically designed to maximise discovery of new drug leads and tools. Venom peptides blocking ion channels and GPCRs in disease areas such as pain, antibiotics and cardiovascular disease are the next generation of therapeutics. Venoms from theraphosids (tarantulas), scorpions and snakes are rich sources of new drug discovery 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 in specific pathways from the literature to act as positive controls. The other venom fractions making up the library have been specially selected by our drug discovery scientists to maximise novel hit potential.

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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 channels¹; *Dendroaspis polylepis* (Black mamba) venom which contains **Mambalgins** that block ASIC1a/2a heteromers²; and *Dendroaspis angusticeps* (Eastern green mamba) venom which contains mambalgins-3 that blocks ASIC1a and ASIC1b channels as well as 1a/2b heteromers³. 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.

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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 C0HJBO

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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