

**Target: Cardiovascular – coagulation, blood pressure, haemorrhage**  
**Format: Targeted Venom Discovery Array**

**Code: T-VDA<sup>CV</sup>**

## Product Description

Venoms are a proven therapeutic resource with several drugs on the market in cardiovascular biology such as anticoagulants and **antihypertensives**. Snake venoms are a rich source of new cardiovascular tools such as C-type lectins, serine proteases, **natriuretics** and a wealth of signalling peptides. 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 analgesic pathways from the literature to act as positive controls. The control venoms for T-VDA<sup>CV</sup> include *Crotalus adamanteus* (eastern diamondback rattlesnake) where several **bradykinin potentiating peptides** have been discovered<sup>1</sup>; *Dendroaspis angusticeps* (eastern green mamba) where several **novel natriuretic peptides** have been discovered<sup>2</sup>; and *Bitis gabonica* (Gaboon viper) venom which contains a large abundance of serine proteases and, in particular, **rhinocerase**<sup>3</sup>. 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. Wermelinger L.S., Dutra D.L., Oliveira-Carvalho A.L., Soares M.R., Bloch C. Jr., Zingali R.B. (2005). Fast analysis of low molecular mass compounds present in snake venom: identification of ten new pyroglutamate-containing peptides. *Rapid Commun. Mass Spectrom.* 19:1703-1708
2. Vink S, Jin A.H., Poth K.J., Head G.A., Alewood P.F., (2012). Natriuretic peptide drug leads from snake venom. *Toxicon.* Mar 15;59(4).
3. Vaiyapuri S., Harrison R.A., Bicknell A.B., Gibbins J.M., Hutchinson G. (2010). Purification and functional characterisation of rhinocerase, a novel serine protease from the venom of *Bitis gabonica rhinoceros*. *PLoS ONE* 5:E9687-E9687

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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