



SenzaGen—next generation safety testing is called **GARD™**

The technology

GARD™ platform

GARD (Genomic Allergen Rapid Detection) is an *in vitro* platform for assessment of various toxicological endpoints using genomic-based technology. The GARD platform offers a portfolio of tests sharing the same scientific principle but focusing on different toxicological endpoints.

GARDskin™ is the first ready-for-market application from the portfolio and is a robust *in vitro* skin sensitization assay with the highest accuracy on the market.^[1]

GARDpotency™ is an add-on assay to GARDskin and is a first-in-class *in vitro* test to perform CLP 1A, 1B potency classification.^[2]

Our pipeline projects include GARDair for respiratory sensitisation, GARD for respiratory irritation, GARD for proteins and GARD for complex mixtures.

The GARDair project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 756014.



Horizon 2020

References

1. Johansson et al., GARD in-house validation – A proof of concept. *Tox Sci*, 2014
2. Zeller et al., The GARD platform for potency assessment of skin sensitizing chemicals. *ALTEX*, 2017

The company

SenzaGen. SenzaGen is a spin-out company from Lund University located in the south of Sweden with expertise in immunology, information technology and genomics. The company is dedicated to developing innovative *in vitro* methods for safety testing of chemicals and ingredients. SenzaGen performs the *in vitro* GARD test in its own laboratory and through licenced partners around the world.

Contact us

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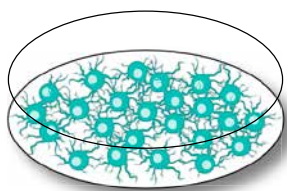


How to GARD™ your product in six steps

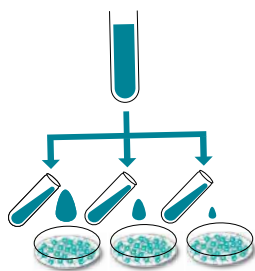


1

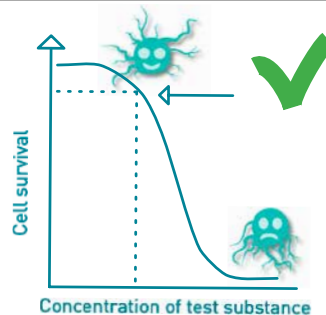
GARD Input Finder



Grown SenzaCells.



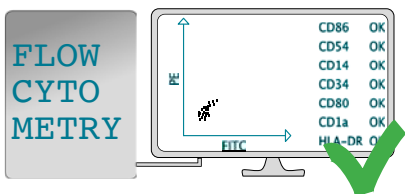
Add different concentrations of the test substance to the cells.



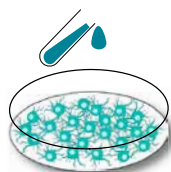
Determine the concentration of the test substance where the cells react and 90% survive.

2

GARD Main Stimulation



Quality control of the cells.



Expose a fresh batch of quality controlled cells at determined concentration.

3

RNA Extraction

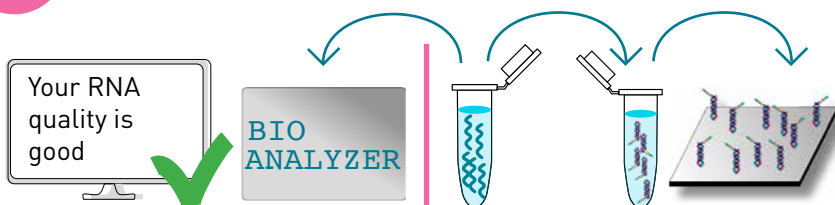


Extract RNA from the cells.

4

Gene Expression Profiling

NanoString Lab



Check the RNA quality.

Hybridise the isolated RNA with reporter probes and load onto a cassette.



Analyse the cassette to quantify the RNA using NanoString nCounter ⇄⇄ output = gene expression readout.

5

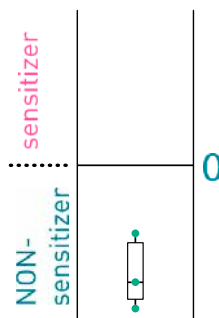
GARD Data Analysis Application



Upload the gene expression readout to the GDA app. Push the button and the trained model processes the data.

6

Results



The results are yours!

