Indian Institute of Technology Guwahati

Guwahati – 781 039, Assam, INDIA

Date: Wednesday, 25 November 2020

Project Reference No:CLE-EFL-SS014

Report of Cell Toxicity Study of

Forbes Coronoguard powered by SHYCOCAN

Objective

Study the Cellular toxicity of Forbes Coronoguard in human alveolar basal epithelial cells.

Scope

- **Cell viability study at different time post treatment.**
- **Cytotoxicity study on human cell lines**

Testing methodology

The effect of Forbes Coronaguard powered by SHYCOCAN will be tested on the human alveolar basal epithelial cells (A549). The cells will be seeded into the 96-wells plates and exposed to the guard for 0-12 hours. The cells will be then added with MTT reagent and further incubated for 3 hrs at 37°C. Later, the MTT reagent will be removed from the wells and cell viability will be determined using plate reader at 570 nm.(Mosmann, 1983)

Performance Analysis

The effect of Forbes CoronaGuard powered by SHYCOCAN has been tested on the human alveolar basal epithelial cells (A549). The cells were seeded into the 96-wells plates and were incubated overnight for attachment. After that, cells are exposed to the Forbes Coronaguard for 0-12 hours. The cells were then added with MTT reagent and further incubated for 3 hours at 37°C. Later, the MTT reagent was removed from the wells and formazan crystals were dissolved with 100 µL of Di-methyl sulfoxide (DMSO). Cell viability has been determined using plate reader at 570 nm. Additionally, the microscopic images were also taken to validate the non-toxic nature of the guard and to look for any morphological changes due to the Forbes Coronaguard powered by SHYCOCAN.

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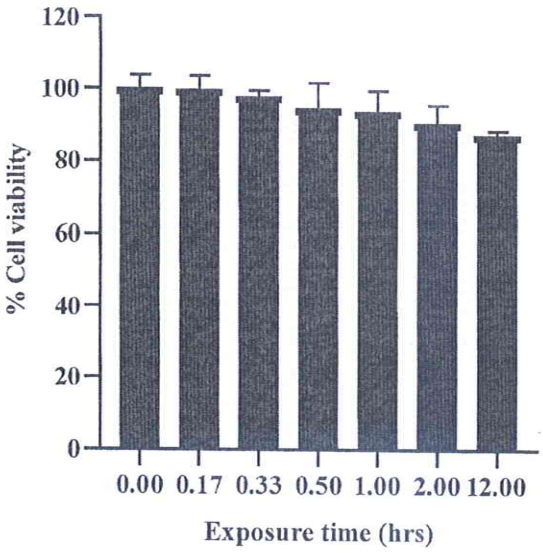

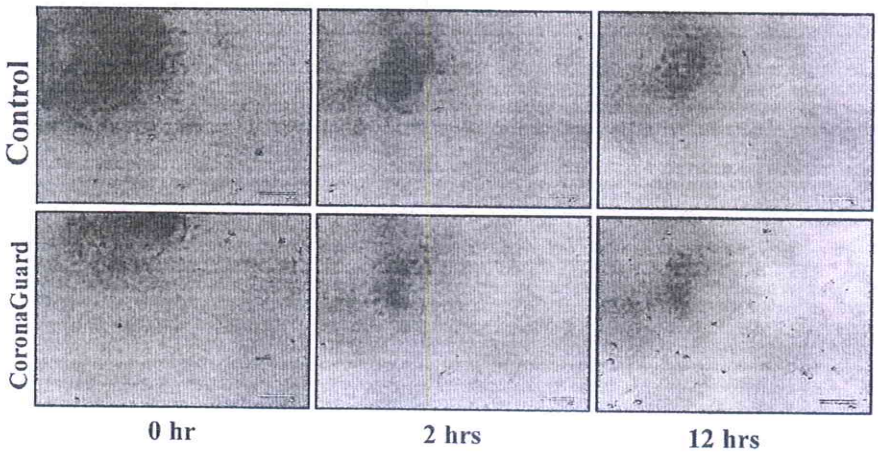

Conclusion

The MTT results indicated the non-toxic nature of Forbes Coronaguard powered by SHYCOCAN as the percentage cell viability was found to be almost same as the controlled group (Mosmann, 1983). Even after the prolonged exposure for 12 hrs, the cell viability was found to be more than 87% (Mondal, 2020). Substequently, the microscopic images showed no morphological differences between test and control groups. Conclusively, these results showed that the Forbes Coronaguard powered by SHYCOCAN is non-toxic to the human cells.

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References

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