Product Details

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

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Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Product Information

The cell proliferation assay reagent alamarBlue® is designed to provide a rapid and sensitive measure of cell proliferation and cytotoxicity in various human and animal cell lines, bacteria and fungi.

alarBlue® is an indicator dye, that incorporates an oxidation-reduction (REDOX) indicator that both fluoresces and changes colour in response to the chemical reduction of growth medium, resulting from cell growth. The alamarBlue® cell proliferation assay reagent is designed to quantitatively measure the proliferation of various human and animal cell lines, bacteria and fungi.

Some variability in the absorbance may occur between batches of alamarBlue® but all batches should fall between 0.84 and 0.95AU when measured between 600nm and 602nm on a spectrophotometer.
Please view the full cell proliferation assay instructions.

Colorimetric and Fluorescence result calculators are available here.

This site includes:
- Frequently Asked Questions
- Example calculations
- Product-related references.

### Test Principle

**Cell proliferation assay**
- Growing cells cause a chemical reduction of alamarBlue.
- Continued growth maintains a reduced environment (fluorescent, red).
- Inhibition of growth maintains an oxidized environment (non-fluorescent, blue).
- Data may be collected using either fluorescence-based or absorbance-based instrumentation.
- Fluorescence is monitored at 530-560nm excitation wavelength and 590nm emission wavelength.
- Absorbance is monitored at 570nm and 600nm.

### Intended Use

**Cell proliferation assays.**
- The reagent can be used to establish proliferation or relative cytotoxicity in a cell proliferation assay.
- Baseline data for predicting the toxicity of related novel agents can be compared to baseline data with known in-vivo toxicity.
- alamarBlue® is for use between pH6.8 and pH7.4.

### Instructions For Use


### References

28. Sagar, J. et al. (2010) Lowering the apoptotic threshold in colorectal cancer cells by
42. Suter, S.E. et al. (2011) FLT3 mutations in canine acute lymphocytic leukemia. BMC Cancer. 11: 38.
64. Grasys, J. et al. (2016) Content of Soluble Factors and Characteristics of Stromal...


99. Caro-Briones, R. *et al.* (2021) Influence of Carbon Nanotubes Concentration on...


Further Reading

Storage
Store at +4°C. DO NOT FREEZE.
This product should be stored undiluted. This product is photosensitive and should be protected from light.

Guarantee
Guaranteed until date of expiry. Please see product label.

Acknowledgements

Health And Safety Information
Material Safety Datasheet documentation #10289 available at: https://www.bio-rad-antibodies.com/SDS/BUF012B 10289

Regulatory
For research purposes only.

Related Products
Recommended Useful Reagents
alamarBlue® (BUF012A)

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