BioAgilytix

BIOMARKER MENU

Explore Our Biomarker Menu

Including 400+ Biomarker Offerings for a Range of Disease States

Biomarker: Reactive Oxygen

Analyte:
Reactive Oxygen

Platform:
Plate-Based Luminescence

Matrix:
0.1M sodium phosphate buffer or water

Status:
Qualified

Required Sample Volume:
5mL

Sensitivity-LLOQ/ULOQ:
LLOQ: 200pM
ULOQ: 1M

Notes:
This biomarker is used to measure redox levels for ASEA products

Biological or Clinical Significance:

Reactive oxygen species (ROS) are chemically reactive molecules containing oxygen. Examples include peroxides, superoxide, hydroxyl radical, and singlet oxygen. In a biological context, ROS are formed as a natural byproduct of the normal metabolism of oxygen and have important roles in cell signaling and homeostasis. However, during times of environmental stress, ROS levels can increase dramatically. This may result in significant damage to cell structures. Cumulatively, this is known as oxidative stress. ROS are also generated by exogenous sources such as ionizing radiation.

To maintain BioAgilytix certification, ASEA provides a regular product sampling for scientific assay to verify the existence of redox signaling molecules in ASEA products.

References:

Devasagayam T, Tilak JC, Boloor KK, Sane Ketaki S, Ghaskadbi Saroj S, Lele RD (October 2004). "Free Radicals and Antioxidants in Human Health: Current Status and Future Prospects". Journal of Association of Physicians of India (JAPI) 52: 796.

Sosa Torres ME, Saucedo-Vázquez JP, Kroneck PM (2015). "Chapter 1, Section 3 The dark side of dioxygen". In Kroneck PM, Torres ME. Sustaining Life on Planet Earth: Metalloenzymes Mastering Dioxygen and Other Chewy Gases. Metal Ions in Life Sciences 15. Springer. pp. 1–12.