

Anti-Human Thioredoxin-146Nd

Catalog: 3146016B

Package Size: 100 tests

Storage: Store product at 4°C. Do not freeze.

Reactivity: Human

Clone: 2G11/TRX

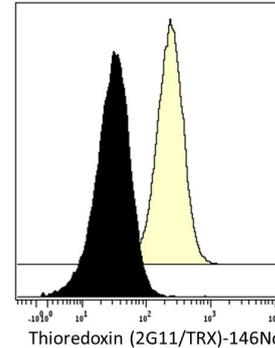
Isotype: Mouse IgG1

Formulation: Antibody stabilizer with 0.05% Sodium Azide

Technical Information

Validation: Each lot of conjugated antibody is quality control tested by CyTOF[®] analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended Usage: The suggested use is 1 µl for up to 3 X 10⁶ live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human K-562 cells (top) and human Jurkat cells (bottom) were fixed, permeabilized, and stained with 146Nd-anti- Thioredoxin (2G11/TRX). Total viable cells are displayed in analysis.

Description

Thioredoxin (Trx) is a 12 kDa oxidoreductase that is kept in the reduced state by thioredoxin reductase in a NADPH-dependent reaction. Serving as a general disulfide oxidoreductase, thioredoxin facilitates the reduction of other proteins by a redox mechanism based on reversible reduction of a disulfide to two cysteine thiol groups, thereby recovering the normal function of the proteins. Trx1 as an antioxidant protein is induced by various kinds of oxidative stresses. In mammalian cells, Trx1 is also involved in the regulation of ROS levels and thus in cell death. In addition, Trx1 is potentially important for the onset of many diseases including inflammatory diseases, heart failure, cancer, etc. Trx1 plays an important role in regulating cancer cell growth by modulating the DNA binding activity of transcription factors, including nuclear factor-κB, p53, and glucocorticoid and estrogen receptors. Immunohistochemical analysis with anti-Trx1 antibodies revealed the expression of Trx1 in cancer cells in various tissues such as the liver, colon, pancreas, and the uterine cervix, indicating the implication of Trx1 in oncogenesis.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly Multiparametric Analysis by Mass Cytometry. *J Immunol Methods* 361 (1-2):1-20, 2010.

For technical support visit fluidigm.com/support

North America +1 650 266 6100 | Toll-free: +1 866 358 4354 in the US | support.northamerica@fluidigm.com **Europe** +33 1 60 92 42 40 | support.europe@fluidigm.com

China (excluding Hong Kong) +86 21 3255 8368 | techsupportchina@fluidigm.com **Japan** +81 3 3662 2150 | techsupportjapan@fluidigm.com

All other Asian countries +1 650 266 6100 | techsupportasia@fluidigm.com **Central and South America** +1 650 266 6100 | techsupportlatam@fluidigm.com

For Research Use Only. Not for use in diagnostic procedures.

Information in this publication is subject to change without notice. **Safety data sheet information** fluidigm.com/sds **Patent and license information** fluidigm.com/legalnotices | Fluidigm, the Fluidigm logo, and CyTOF are trademarks or registered trademarks of Fluidigm Corporation in the United States and/or other countries. © 2015 Fluidigm Corporation. All rights reserved. 07/2015