IMMUNO-METABOLISM LINK
Agilent Seahorse XF Technology
Technical Flyer

Move beyond characterization to controlling cell fate by modulating metabolism

- Activate
- Modulate
- Investigate

Seahorse XF Technology
- Live cell
- Real-time
- Label-free
- Dynamic injection ports
- Measures both major metabolic pathways simultaneously – respiration and glycolysis

Platelets and leukocytes have distinct metabolic signatures
Adapted from Kramer et al., (2014) Redox Biol

Macrophage activation increases glycolytic rates (LPS and INFγ)
Yoon et al., (2017) 5991-8342EN

Fatty acid oxidation is required for memory T cell development
Adapted from Van der Windt et al., (2012) Immunity
Researchers are using XF Technology to Push the Boundaries of Immunology Research

A comprehensive window into the entire immune cell life cycle

**XF Assays & Kits provide routine, reliable, and consistent results for:**
- Mitochondrial Function
- Glycolytic Function
- Metabolic Phenotype
- Cell Fuel Flexibility/Preference

**XF Technology to measure:**
- Immune cell life cycle, lineage, and checkpoints
- Immune cell phenotype, function, and reprogramming
- Real time activation
- Metabolic requirements and fuels
- Metabolic signaling and pathways
- Modulation to control outcome

Learn More About Seahorse XF Technology and Immunology Research [agilent.com/chem/immunology](http://agilent.com/chem/immunology)

More about Immunology

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Assay Kits Available:
- XF Real Time Activation Assay
- XF Cell Mito Stress Test Kit
- XF Glycolysis Stress Test Kit

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