



FirePlex Immunoassay

Accurate measurement of multiple analytes in a single sample

ABOUT FIREPLEX IMMUNOASSAYS

Numerous mediators that are released in response to stimuli or during inflammation can promote diseases. Much research is conducted to evaluate prospective disease markers or monitor disease progression and so investigators need accurate quantification tools. Prevailing techniques are limited by sensitivity, amount of sample required or the amount of information that can be ascertained from a single sample. FirePlex immunoassays uses particle technology to measure up to 70 analytes, ranging from cytokines to microRNA, in just a small amount of sample. These assays have high-performance, high-throughput multiplexing capabilities and provide substantial information from each sample.

HOW DOES THE ASSAY WORK?

FirePlex Immunoassay incorporates the innovative **FirePlex particle technology** with optimized matched antibody pairs for analyte detection. This facilitates the superior sensitivity and specificity standards. A general work flow is as follows:

1. Samples and standards are first mixed with FirePlex particles.

2. The samples are then incubated with biotinylate
3. d detector antibodies and streptavidin-dye conjugates.
4. The processed samples are then acquired on the Cytoflex S flow cytometer.

ASSAY BENEFITS

- **Superior specificity and sensitivity:** 0.5 to 30,000 pg/mL
- **Flexibility:** easily automated for use in routine compound screening
- **Simultaneous detection of multiple analytes:** Analysis of up to 70 analytes per well
- **Standardized platform:** 96-well plate format using Cytoflex S flow cytometer.
- **Use of specialized reagents:** Assay conditions are optimized for accurate and reproducible data.
- **Simple and fast workflow, direct from biofluids**
- **Wide dynamic range** (up to 5-log dynamic range)

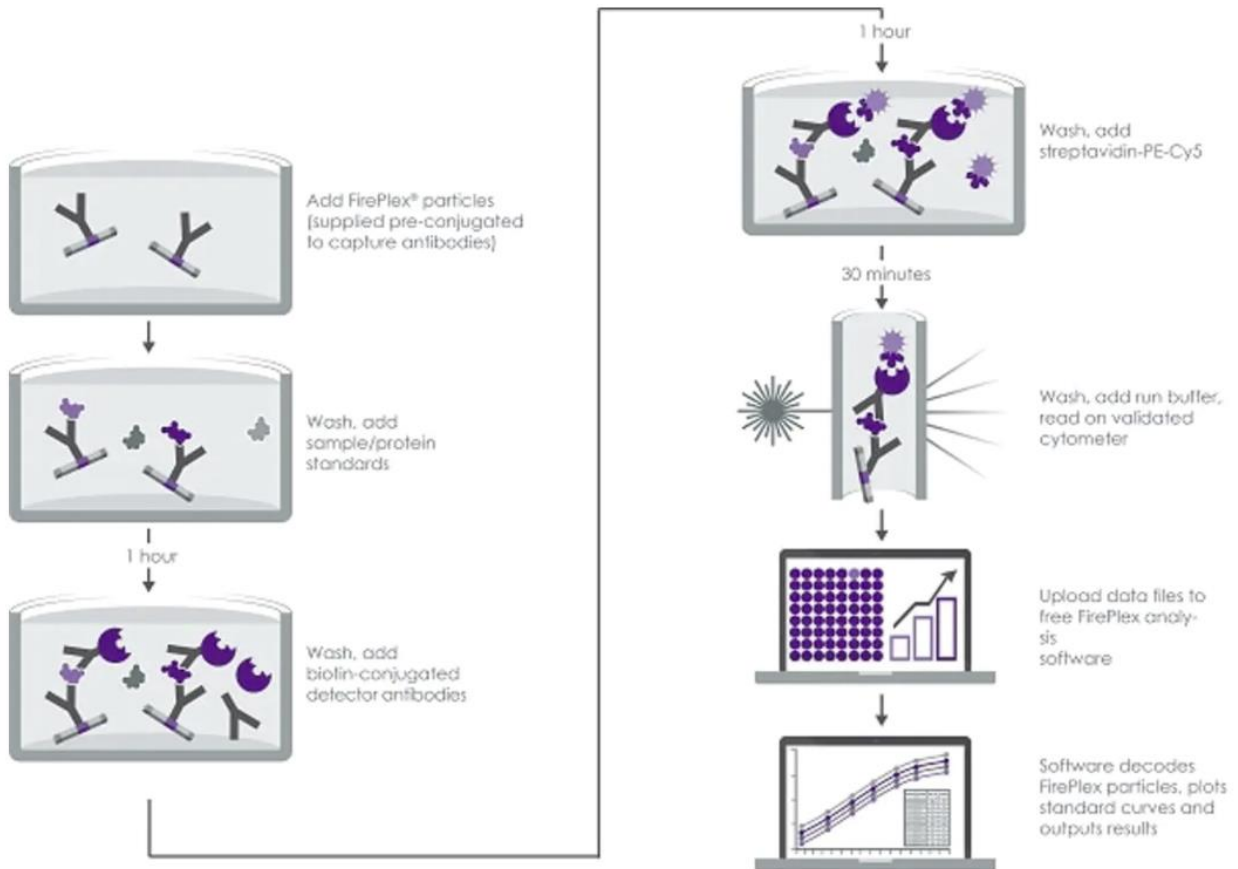
SAMPLE REQUIREMENTS

- **Minuscule samples:** Only 12.5 μ L of sample input, direct from biofluids
- **Compatibility:**
 - ✓ Validated for a variety of biological fluids such as Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma, Other biological fluids, Hep Plasma, EDTA Plasma, Cit plasma, Cerebral Spinal Fluid
 - ✓ Different species such as human, non-human primates, mice and rats





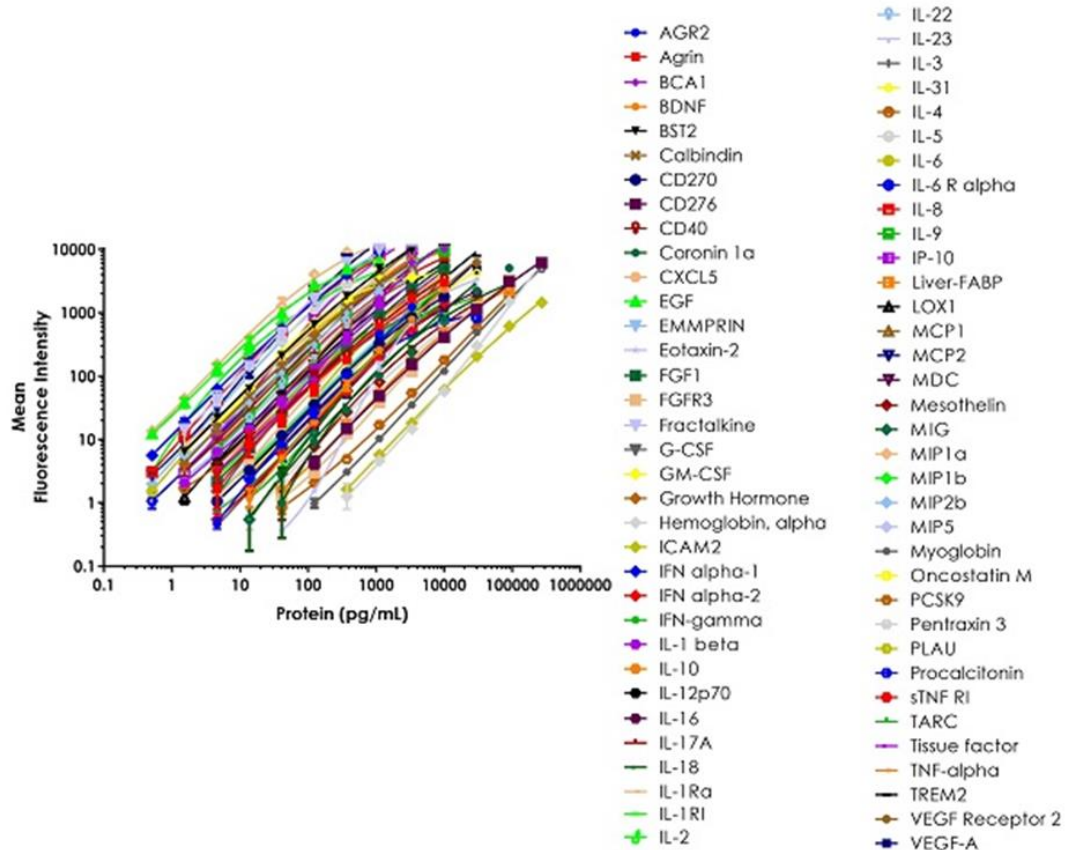
Main Steps of FirePlex Immunoassay



SERVICE FEATURES

- ❖ **High throughput:** 96-well format
- ❖ **Simultaneous quantitation of multiple analytes**
- ❖ **Comprehensive biomarker profiling:**
 - ✓ Cytokines
 - ✓ MicroRNA
- ❖ **Highly reproducible**
- ❖ **State-of-art platforms:** Cytoflex S flow cytometer
- ❖ **Extensive data analysis**
- ❖ **Timely data delivery:** 1-4 weeks or sooner, upon receiving test samples
- ❖ **20+ years of experience:** Expert data analysis and interpretation, high quality scientific and technical support





Example 1. Human Cytokine Assay Panel standard curves. Human Discovery Cytokine Panel 1 standard curves. Mean background and control particle-subtracted data values are graphed. Error bars represent standard deviation.

