# ImmunoPrism®

## SOLID TUMOR IMMUNE PROFILING ASSAY

**Leverage our Predictive Immune Modeling platform, validated reagents, and database of Health Expression Models in our CAP-accredited laboratory to gain new insights into the tumor microenvironment.**

## Multidimensional Biomarkers

Your patient cohorts are compared to our database of Health Expression Models to better quantify individual immune responses. Then, using machine-learning, we combine these into a multidimensional biomarker that more accurately predicts response to therapies.

As shown in the figure below, in a cohort of sarcoma patients who received radiation therapy, the ImmunoPrism multidimensional biomarker showed an increase of >10% accuracy over individual markers in predicting response.

Improvements in predicting response can save you time and money in drug development.

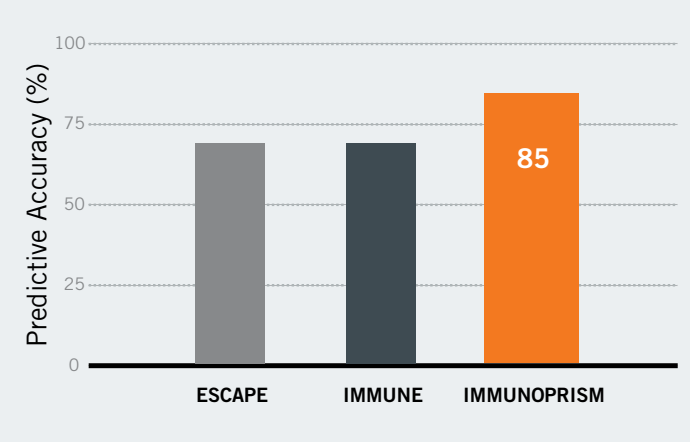
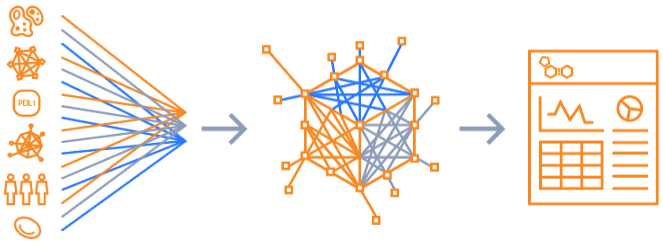



**Figure 1:** Cofactor's ImmunoPrism multidimensional biomarker showed >10% increase* in predictive accuracy for a cohort of sarcoma patients responding to radiation therapy.

**Over the individual immune and escape markers analyzed.*

## Predictive Immune Modeling



Data from patients in a clinical study is combined with other inputs during our Predictive Immune Modeling Process

The output is a Multidimensional Biomarker

The biomarker report can be used to predict outcomes of future samples

## Low Input

ImmunoPrism accepts RNA from all solid tumor types, from as little as two FFPE sections or 20 ng of RNA. We optimize RNA extraction to minimize material required.

## Quantitative Comparisons

Using our Health Expression Models to define key immune cells, Cofactor's quantitative immune characterization enables intra- and inter-sample comparisons and cell ratios, demonstrated to be predictive biomarkers for therapies. Then, our Predictive Immune Modeling platform goes further to deliver multidimensional biomarkers with increased predictive power, with no additional analysis required.

Cofactor's ImmunoPrism™ Assay is offered both for Research Use Only (not to be used as a diagnostic assay) and as a CAP-validated assay. Please contact us to discuss which option is right for your application. The CAP-validated assay reports only on the immune cell components of the assay.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

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COFACTOR genomics

# Multidimensional Biomarkers Powered by Health Expression Models

## Discover Powerful Immune Biomarkers

With high sensitivity and specificity for detecting immune response in FFPE solid tumor tissue, Cofactor's Predictive Immune Modeling platform provides a turnkey solution for biomarker discovery.

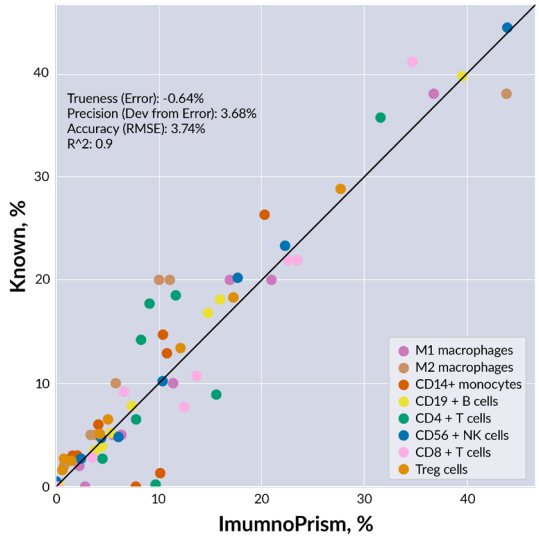



**Figure 2:** ImmunoPrism correlates highly to flow cytometry and IHC measurements. Flow cytometry validation (shown above) was performed using highly-controlled PBMC-derived samples.

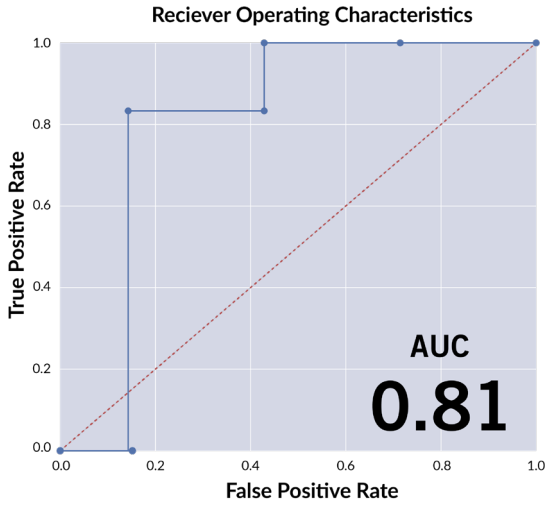
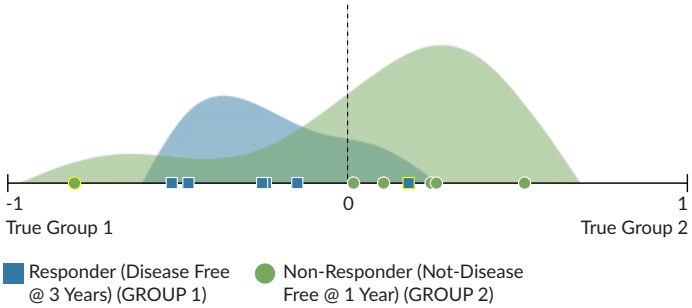



**Figure 3:** For various thresholds of the multidimensional biomarker, the True Positive Rate (y-axis) is plotted against the False Positive Rate (x-axis) in blue. The area under the curve ('AUC') is included in the lower right corner. The random predictor is shown as a dashed red line.




*Individual outliers are highlighted in yellow and listed on page 3 of the report

**Figure 4:** This section shows the distributions of individual samples from both cohorts classified by the multidimensional biomarker. The values are plotted along the axis, and the frequency of sample values are visualized in the vertical space. The dashed line at O indicates the prediction threshold that separates the cohorts.

## IMMUNE HEALTH EXPRESSION MODELS

**CD4+ T cells, CD8+ T cells, CD56+ Natural Killer cells, CD19+ B cells, CD14+ monocytes, Tregs, M1 and M2 macrophages**

## IMMUNE ESCAPE GENES

**PD-1, PD-L1, CTLA4, OX40, TIM-3, BTLA, ICOS, CD47, IDO1, ARG1**

## CO-INHIBITORY/CO-STIMULATORY MOLECULES:

**CD48, CD244, CD96, PDCD1LG2, LAG3, LGALS9, TNFRSF18, TNFRSF25, TNFSF18, TNFSF4, CD28, HHLA2, CD80, TNFSF15, CD27, CD276, TMIGD2, CD70, PVRL2, CD40, ICOSLG, CD40LG**

## Accepted Sample Formats

- Fresh or frozen tissue
- FFPE including slides, sections, or curls
- Laser capture microdissected (LCM) tissue
- Macrodissected tissue
- Core needle biopsies (CNBs)
- Fine needle aspirates (FNAs)
- Previously extracted total RNA samples

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