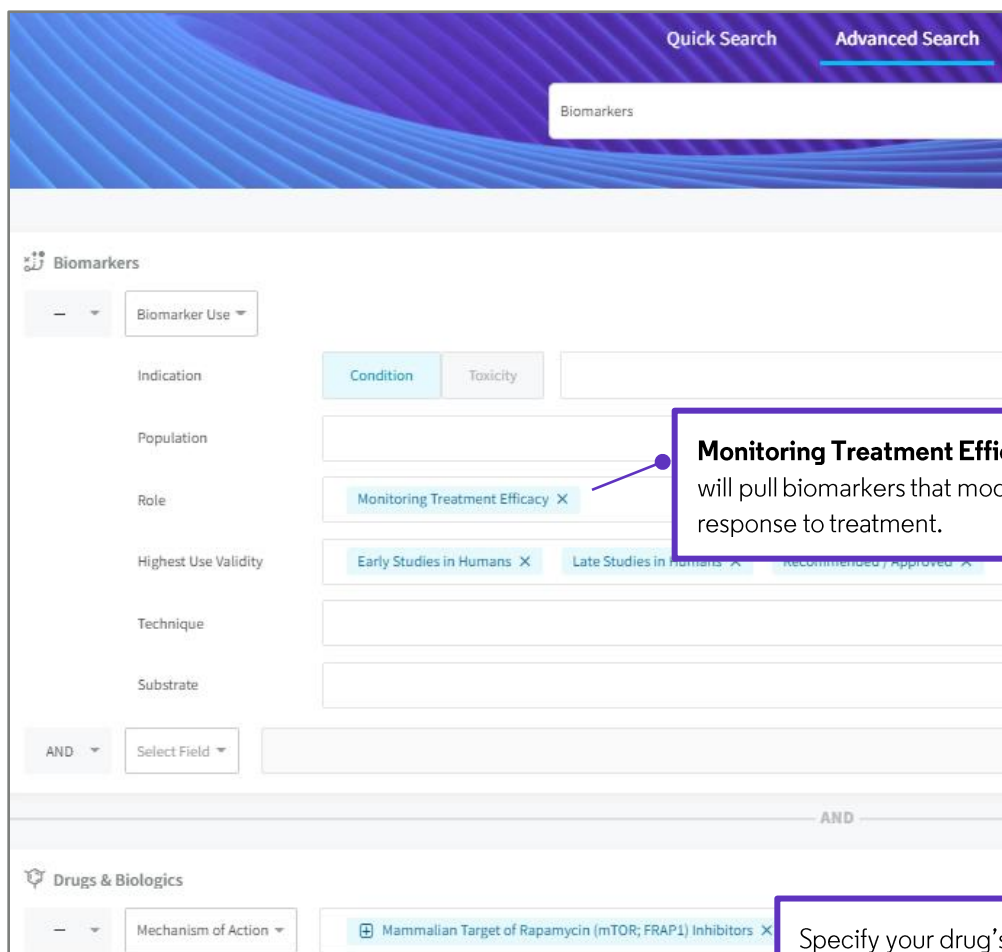


Pharmacodynamic markers for Target Validation

Cortellis Drug Discovery Intelligence

Pharmacodynamic biomarkers can be used as a tool to validate your drug's mechanism of action. In the example below, you are developing a *mammalian target of rapamycin* (mTOR) inhibitor and wish to explore biomarkers that could potentially be used to validate its mechanism in your phase I studies.

1. Use **Advanced Search** to specify biomarker **Role** (monitoring treatment efficacy), **Highest Validity** (at least early studies in humans) and drug's **Mechanism of Action**.



The screenshot shows the 'Advanced Search' interface in the Cortellis platform. The top navigation bar includes 'Quick Search' and 'Advanced Search' tabs. Below the navigation bar is a search bar labeled 'Biomarkers'. The main search area is divided into two sections: 'Biomarkers' and 'Drugs & Biologics'. The 'Biomarkers' section has a 'Biomarker Use' dropdown menu and several filter fields: 'Indication', 'Population', 'Role', 'Highest Use Validity', 'Technique', and 'Substrate'. The 'Role' field is set to 'Monitoring Treatment Efficacy X'. The 'Highest Use Validity' field is set to 'Early Studies in Humans X' and 'Late Studies in Humans X'. The 'Drugs & Biologics' section has a 'Mechanism of Action' dropdown menu and a filter field set to 'Mammalian Target of Rapamycin (mTOR; FRAP1) Inhibitors X'. Two callout boxes provide additional context: one points to the 'Monitoring Treatment Efficacy X' role, stating 'Monitoring Treatment Efficacy role will pull biomarkers that modulate in response to treatment.'; the other points to the 'Mammalian Target of Rapamycin (mTOR; FRAP1) Inhibitors X' mechanism of action, stating 'Specify your drug's mechanism of action under **Drugs & Biologics**.'

Quick Search Advanced Search

Biomarkers

Biomarkers

Biomarker Use

Indication

Population

Role

Highest Use Validity

Technique

Substrate

AND

Drugs & Biologics

Mechanism of Action

Mammalian Target of Rapamycin (mTOR; FRAP1) Inhibitors X

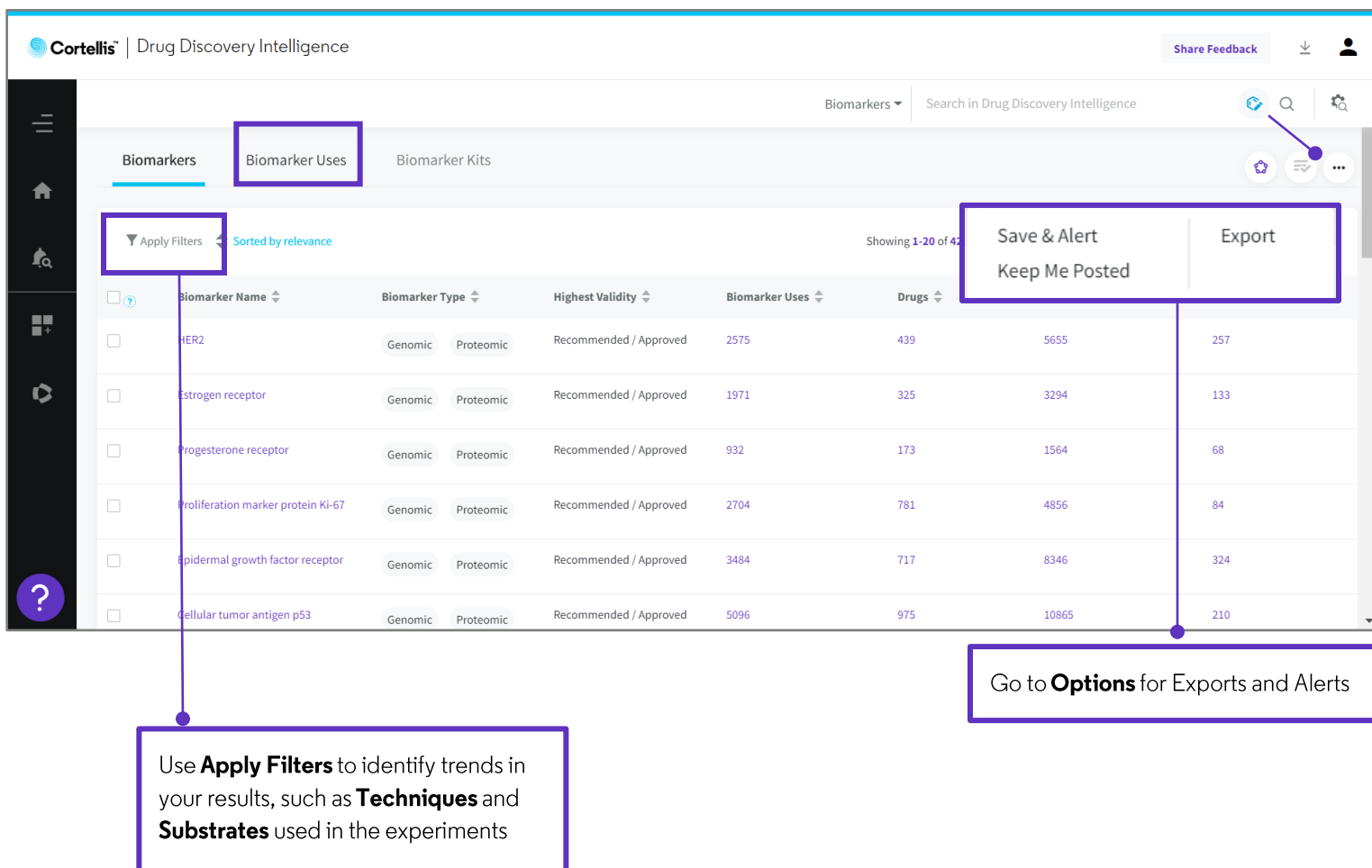
Monitoring Treatment Efficacy X

Early Studies in Humans X Late Studies in Humans X Recommended / Approved X

Specify your drug's mechanism of action under **Drugs & Biologics**.

Monitoring Treatment Efficacy role will pull biomarkers that modulate in response to treatment.

- On your results page, you will find a list of **pharmacodynamic markers** that have been used in humans to monitor the effect of mTOR inhibitors. Navigate to the **Biomarker Uses** tab to see additional contextual information.



Apply Filters Sorted by relevance

Showing 1-20 of 42

Biomarker Name	Biomarker Type	Highest Validity	Biomarker Uses	Drugs
HER2	Genomic Proteomic	Recommended / Approved	2575	439 5655 257
Estrogen receptor	Genomic Proteomic	Recommended / Approved	1971	325 3294 133
Progesterone receptor	Genomic Proteomic	Recommended / Approved	932	173 1564 68
Proliferation marker protein Ki-67	Genomic Proteomic	Recommended / Approved	2704	781 4856 84
Epidermal growth factor receptor	Genomic Proteomic	Recommended / Approved	3484	717 8346 324
Cellular tumor antigen p53	Genomic Proteomic	Recommended / Approved	5096	975 10865 210

Save & Alert
Keep Me Posted

Export

Use **Apply Filters** to identify trends in your results, such as **Techniques** and **Substrates** used in the experiments

Go to **Options** for Exports and Alerts

For more information contact Customer Service at [LS Product Support](#)