

# Find latest biomarkers for a specific disease

*Are you interested in recent advances in discovery (identification and development) of biomarkers? Do you want to be able to find biomarkers early in their development that have been patented as having application to a disease of interest?*

Biomarker Module of Clarivate Analytics Integrity enables you to find newly discovered and claimed biomarkers in connection to a disease of interest and keep up to date with advancements in development. Benefit from comprehensive manually curated intelligence on biomarkers captured from patents, literature and conferences. **Example Scenario:** you want to find the most recently patented biomarkers for multiple myeloma with any applications (you are interested in “white space” investigation or searching for new potential treatment targets).

## Find recently reported multiple myeloma biomarkers:

To find all biomarkers reported in source references related to a disease, go to the **Biomarkers** knowledge area.

Click **Select Value** in the Biomarker section and choose **Indication** -> **Condition** from the dropdown menu.

Click **Index** to the right of this field.

In the pop up window that appears, type “myeloma” into the text box on the left side of the window and click **Lookup**.

Select **Order Alphabetically**, click on the specific term “multiple myeloma” from the list of options present on the right and click OK to copy the term into the search from.

Next, click **Optional Value** in the **Biomarker** section and choose **Available Since** from the dropdown menu.

Click **Index** to the right of this field to see the date format used in *Integrity*. In the search form, type “from 20170101” to retrieve biomarker records added to the database since January 1<sup>st</sup>, 2017.

Now with both fields entered, click the **Start** button at the top of the page to begin the search.

The search will retrieve all biomarkers reported in connection with multiple myeloma that are newly entered into the database since the given date regardless of validity levels.

**Tip:** Integrity includes multi-markers, such as gene signatures or protein panels, where a combination of components is used as biomarker. You can exclude multi-markers from your search results by selecting **Combination Biomarker (Y/N)** from the menu of optional values and typing “n” (for “No”) into the search form.

**Advanced Search** Session History Clear Form Start

**Biomarker**

Condition (Indication) ▶ "Multiple myeloma" Index AND ▶  
 Available Since ▶ from 20170101 Index AND ▶  
 Highest Validity ▶ "Emerging" Index AND ▶

**Tip:**

- You can also define the validity level in the initial search as "emerging" using the **Highest Validity** field and selecting **Emerging** from the **Index**. This will restrict the search to biomarkers that have been reported to serve as a marker for multiple myeloma but are in early stages of development in addition to only having been added to the database since the given date.

Enter a word or part of a word in the box below and click Lookup to display on the right a short list of search terms from which to make your selection. It is not necessary to use truncation indicators. Alternatively, click a letter below for a list of terms starting with that letter.

0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Lookup

Select one or more terms from the list below and click OK to copy the term(s) to the Search Form.

Emerging  
 Experimental  
 Early Studies in Humans  
 Late Studies in Humans  
 Recommended / Approved

OK

## Setting up alerts from newly added biomarkers:

**Records Retrieved** Records 1 to 10 of 31 retrieved

**Biomarkers Search Results**

Query > Condition (Indication) = "Multiple myeloma" AND Available Since = from 20170101

Biomarker Name	Type	Use Indication Type and Validity	Options	Source	MetaCore
Caspase-9 subunit p35	Proteomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
Choline kinases	Proteomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
Chromosome locus 2q16.1 2q16.1	Genomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
FGFR1-IGH fusion gene FGFR1-IGH; FGFR1-IGH DNA; FGFR1/IGH	Proteomic; Genomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	FGFR1 IGH

**Save Query**

To save your query, enter a Query Name and Description and click Save Query.

Use the Optional e-mail alert field to change the frequency of alerts: never, daily, weekly or monthly.

When new records are found by the query, you will receive notification by e-mail.

Query Name: Recent MM BMKs  
 Description:  
 Optional e-mail alert: Weekly (sent Sat.)  
 Email Address: name.surname@email.com

You can add additional email addresses for this alert. Separate email addresses with a semi-colon (;)

Save Query Cancel

In the results view use the **Options** drop-down menu to set up a **Save Query** alert to be notified when new biomarkers are added to the database that are connected to multiple myeloma. A pop-up menu will appear with various options for your alert.

Type your email address in the relevant box and select preferred alert frequency then save the alert by clicking **Save Query**. You will now be notified when new records that meet your search criteria enter the *Integrity* database.

**Tip:**

- You can find full definitions for **validity** phases, **source evidence** and other fields in the **Biomarker Frequently Asked Questions (FAQs)** document. There is a link to the FAQs from the **Learning Center** panel, located on the bottom left corner of the *Integrity* homepage or from the Biomarkers Advanced Search page by clicking the link in the left-hand column.

## Changing the view:

**Records Retrieved** Records 1 to 10 of 31 retrieved

**Biomarkers Search Results**

Query > Condition (Indication) = "Multiple myeloma" AND Available Since = from 20170101

Biomarker Name	Type	Use Indication Type and Validity	Options	Source	MetaCore
Caspase-9 subunit p35	Proteomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
Choline kinases	Proteomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
Chromosome locus 2q16.1 2q16.1	Genomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	
FGFR1-IGH fusion gene FGFR1-IGH; FGFR1-IGH DNA; FGFR1/IGH	Proteomic; Genomic	Major Condition Cancer All	Integrity Reports Biomarker List Biomarker Full Record Biomarker Use Record Biomarker List with Kits	P ESH LSH R/A All Ref Pat Kits	FGFR1 IGH

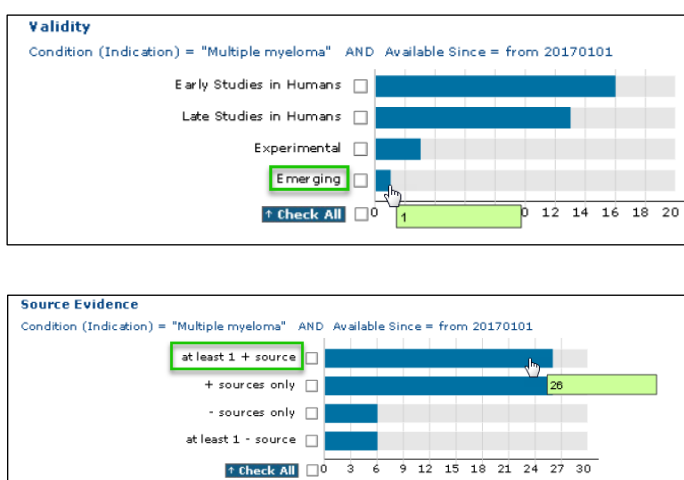
With *Integrity Biomarkers*, the options to change the way the content is viewed can be a powerful way to explore the data. The initial search results are formatted in a table where the content pertaining to the biomarker record is displayed.

Using the **Options** drop-down menu, you can change this display using one of 5 different display formats. By selecting the **Biomarker List** option you can view the biomarkers from a new perspective with each biomarker use broken down.

If you have any questions please contact us at: [DTStraining@clarivate.com](mailto:DTStraining@clarivate.com)

Caspase-9 subunit p33					
Population	Role	Technique (Substrate)	Parameter	Validity (Authority)	Sources
All	Monitoring Treatment Efficacy	Western blotting (Tissue)	NA	Early Studies in Humans	Ref 1 0 0 1
View List					
Choline Kinases					
Population	Role	Technique (Substrate)	Parameter	Validity (Authority)	Sources
Adult to elderly	Predicting Treatment Efficacy	PET / CT (Whole body)	SUVmax	Early Studies in Humans	Ref 1 0 0 1
View List					
Chromosome locus 2q16.1					
Population	Role	Technique (Substrate)	Parameter	Validity (Authority)	Sources
All	Prognosis	Oligonucleotide array analysis (DNA)	NA	Early Studies in Humans	Ref 1 0 0 1
View List					
EGFR L858R fusion gene					
Population	Role	Technique (Substrate)	Parameter	Validity (Authority)	Sources
p53 Mutation Carriers	Risk Factor	FISH (DNA)	NA	Early Studies in Humans	Ref 0 0 1 1
View List					

Filter by Statistics	
BIOMARKER	
<input type="checkbox"/>	Highest Validity
<input type="checkbox"/>	Combination Type
<input type="checkbox"/>	Component Biomarker
<input type="checkbox"/>	Component Of
<input type="checkbox"/>	Biological Process
<input type="checkbox"/>	Product Modifier
<input type="checkbox"/>	Mechanism Modifier
<input type="checkbox"/>	Method Papers (Y/N)
BIOMARKER USE	
<input type="checkbox"/>	Indication Type
<input type="checkbox"/>	Major Condition
<input type="checkbox"/>	Safety/Tox
<input type="checkbox"/>	Experimental Pathology
<input type="checkbox"/>	Population
<input type="checkbox"/>	Role
<input type="checkbox"/>	Technique
<input type="checkbox"/>	Substrate
<input type="checkbox"/>	Genetic Variation Type
<input type="checkbox"/>	Parameter
<input type="checkbox"/>	Validity
<input type="checkbox"/>	Scientific Authority
<input type="checkbox"/>	Source Evidence
BIOMARKER KIT	
<input type="checkbox"/>	Kit Name
<input type="checkbox"/>	Organization
<input type="checkbox"/>	Status
<input type="checkbox"/>	Country / Area
<input type="checkbox"/>	Regulatory Authority



You may find the **Validity** and **Source Evidence** fields informative in understanding both how mature a biomarker is and whether the literature supports or refutes that biomarker use in a given context. This information can be found on the right-hand side of the display.

The results from a search can be refined using the fields within the records. The fields you can use to filter the results are set out in the **Filter By Statistics** box. Using these options, you can quantify the number of records that contain a given value and take a subset by either clicking on the bar or selecting a number of fields using the tick boxes to view these subsets together.

For example, the biomarkers in the results can be filtered by their **Validity**. By selecting the **Emerging** bar, you can view that only 1 biomarker falls within this category.

A subset can be further refined by filtering on another field such as **Source Evidence**. In this example, you can take "**at least 1 + source**" subset to include only those results where a significant association ( $p < 0.05$ ) has been found between biomarker and condition in at least one published reference.

## Exporting your results:

Options	
<input type="button" value="Save Query"/>	
<input type="button" value="Keep Me Posted"/>	
<input checked="" type="button" value="Export Center"/>	
<input type="button" value="Integrity Reports"/>	
<input type="button" value="Biomarker Table"/>	
<input type="button" value="Biomarker Full Record"/>	
<input type="button" value="Biomarker Use Record"/>	
<input type="button" value="Biomarker List with Kits"/>	
<input type="button" value="Kit Development Status List"/>	
<input type="button" value="All Related Information via Quick Search"/>	
<input type="button" value="Printer Friendly Format"/>	

**Export Center - Biomarkers**

This feature allows users to export selected data from Integrity for use in other applications. Up to 2000 rows (Format as Table Data, 2000 row-based sources) can be exported as Table Data or as a list of records. The maximum number of records is 2000. Records are exported as a list of records or as a list of records by clicking the record selection button.

1) Use the pull-down menu to choose an export format:

Export type: **Excel**

☒ **BIOMARKER**

☒ Biomarker Name

☒ Last Updated Date

☒ Synonyms

☒ Biomarker Type

☒ Highest Validity

☒ Combination Type

☒ Component Biomarker

☒ Combination Biomarker (Y/N)

☒ **BIOMARKER USE**

☒ Use ID

☒ Major Condition

☒ Condition

☒ Safety/Tox

☒ Experimental Pathology

☒ Population

☒ Role

☒ Technique

☒ Substrate

☒ Component Of

☒ Biological Process

☒ Description

☒ Product Modifier

☒ Mechanism Modifier

☒ Method Papers

☒ Link to Integrity

☒ MetaCare

2) Enter the record numbers for the records to be exported. Use commas and hyphens to indicate multiple records and ranges of records. If you have selected records in the results list, the bottom table shows the records that you have selected. You can edit the records you wish to export, which will supersede the records you selected.

Examples

A) Entering 1, 3-5, 14 will export records 1, 3, 4, 5 and 14.

B) Leaving the box blank will export the first 2000 records starting at number 1.

4) Click Export.

Once filtered, the results will contain only those biomarkers that are most interesting. It may, therefore, be useful to export the relevant data to external files for further analysis and distribution to colleagues and project partners.

Using the **Options** drop-down menu select the **Export Center** where there is a variety of options for the format and fields that the data can be exported into.

There is the option to export into MS **Word** or **Excel** file formats. To customize the export so that you have the data that is needed, you can select from the fields contained within the records. You can select fields from both the **Biomarker** and **Biomarker Use** records.