

# Using the caBIO Portlet Simple Search Tool to Find Genes Associated with a Disease

## Page Contents

- [Selecting a Disease Search Term](#)
- [Using the Simple Search Tool](#)
- [Simple Search Tool Retrieved Results](#)
- [Disease Ontologies](#)

## Documentation Table of Contents

- [Documentation Main Page](#)
- [Creation of the Cancer Gene Index](#)
- [Data, Metadata, and Annotations](#)
- [Cancer Gene Index Gene-Disease and Gene-Compound XML Documents](#)
- [caBIO APIs](#)
- [Cancer Gene Index Shared Parsed Data and Code](#)
- [caBIO Portlet Templated Searches](#)
- [caBIO Home Page](#)
- [caBIO iPhone Application](#)
- [caBIO Portlet Simple Searches](#)
- [Glossary](#)
- [Credits and Resources](#)



### To Print the Guide

We recommend you print one wiki page of the guide at a time. To do this, click the printer icon at the top right of the page; then from the browser File menu, choose Print. Printing multiple pages at one time is more complex. For instructions, refer to [How do I print multiple pages?](#).



### Having Trouble Reading the Text?

Resizing the text for any web page is easy. For information on how to do this in your web browser, refer to this [W3C tutorial](#)

## Selecting a Disease Search Term

The [caBIO Portlet Simple Search](#) tool creates an auto-populated list of caBIO terms that match the characters you have entered (1). Thus, you may select any of these suggested terms that match your disease concept of interest (for example, "ovarian serous cystadenocarcinoma") to search for objects with attributes that match the term. If you would like to use a more general search term in order to retrieve objects with attributes that are associated with more than one disease term (for example, any cancer term associated with the ovary), you may use the "\*" wild card character, which will replace zero or more characters (for example, a search for "ovar\*").



The screenshot shows the caGrid Portal website. At the top is a navigation bar with links: HOME, SERVICES, TOOLS, COMMUNITY (highlighted), NEWS, and REGISTER. Below this is the caBIO Portlet section. It features a search bar with the text "ovarian serous" entered. A dropdown menu shows suggestions: "ovarian serous carcinoma", "ovarian serous carcinomas", "ovarian serous borderline tumors", "ovarian serous adenocarcinoma", "ovarian serous tumors", "ovarian serous papillary cancer (ospc)", "ovarian serous cystadenocarcinoma", "ovarian serous tumors ( ost )", and "ovarian serous neoplasms". To the right of the search bar is a "Search" button. Above the search bar are tabs for "Simple Search", "Templated Searches", and "About". The "Simple Search" tab is selected. Below the search bar, there are links for "CONTACT US", "PRIVACY NOTICE", and "DISCLAIMER". At the bottom right, there are logos for the NATIONAL CANCER INSTITUTE, a stylized bird logo, and the NATIONAL PORTAL OF HEALTH.

## Using the Simple Search Tool

Once you have found a search term (1), click the Search button (2). If you would like, you may refine your search by clicking the Advanced Options (3). The Exclude field allows you to exclude objects that match your desired terms. You may select the format for retrieved results as lists of "simple" records, the default setting, or as objects. The Simple view returns at most three pieces of information from each retrieved object: the object name in blue text, miscellaneous data specific to the object's type in black text, and the type name in green text. You can view all of the object's attributes and data by clicking on the blue object name link. Alternatively, the Objects view will give a list of all attributes and metadata from retrieved objects.

### Note

Due to space constraints and the nature of the Simple Search (that is, you must click through to a separate caBIO viewer to find the desired genes or diseases and compounds), you will likely not find the Objects view to be a useful option.


You may also increase the number of results per page from the default value of five to either ten or fifteen. Finally, if you enter multiple keywords, you may define whether to search for objects with attributes that contain any of the keywords, the default setting or that contain all of the keywords. This advanced option is only useful if you do not take advantage of the auto-populated list of matched search options.

### Search Tip

It is strongly advised for you to select 15 returned results per page from the Advanced Options.

## Simple Search Tool Retrieved Results

Simple Search queries retrieve lists of caBIO objects. The list is formatted such that three pieces of information are shown for each object - a blue link to all of the object's attributes and data, type-specific information (here, an EVS ID for Disease Ontology, EST for Library, and a disease alias for Protocol Association) in black text, and the object's type in green text. You do not have to first search the NCI Thesaurus to find an appropriate search term or code. Review the list of retrieved objects, clicking through to subsequent results pages, until you find an Evidence type object (green box). The type-specific information will not be shown for some results.



The [caBIO portlet](#) is a portal user interface built on top of the caBIO APIs. [caBIO](#) is a repository of data useful in biomedical research, compiled from multiple primary sources.

[Simple Search](#)
[Templated Searches](#)
[About](#)

Advanced Options

Match Terms: ☒ any ☐ all

Exclude:

View: ☒ simple ☐ objects

Results per page:

Results 1 - 5 of 29 for "ovarian serous carcinoma"

**ovarian serous carcinoma**

C7550

Disease Ontology

AIMS: It has been suggested that WT-1 is helpful in distinguishing... putative diagnostic marker to distinguish between primary **ovarian serous carcinoma** (OSC) from primary uterine serous carcinoma (USC)

Evidence

WT-1 may also be helpful in differentiating poorly differentiated ... putative diagnostic marker to differentiate between poorly differentiated **ovarian serous carcinoma** from poorly differentiated ovarian endometrioid carcinoma

Evidence

Mutations in BRAF and KRAS characterize the development of low-gra...

Evidence

Mutations in BRAF and KRAS characterize the development of low-gra...

Anomalie\_Detail: Molecular\_Genetic\_Abnormality

Evidence

1 2 3 4 5 6 [Next](#)

Once you click on the object's name, you may review the sentence, [sentence status flag](#), [cell line indicator](#), and [negation indicator](#) data for the object (1). In order to view the gene associated with this piece of evidence, you must use the caBIO Object Graph Browser.



#### Warning!

If you do not want to spend time navigating through the caBIO object model for candidate gene-disease associations that were found to be false positives, unclear, or redundant to other data, you should first view the check that the [sentenceStatus](#) attribute is set to *finished* and the [negationIndicator](#) to *no* (1) before opening the caBIO Viewer (2).

To open the browser, click the [Open this record in the caBIO Object Graph Browser](#) link at the bottom of the page (2). A new window or tab in your web browser should open and display the Evidence type object. To return to the list of retrieved results, you may return to the Simple Search window or tab in your web browser and click the "Return to results" link (3).

## caBIO Portlet



The [caBIO portlet](#) is a portal user interface built on top of the caBIO APIs. [caBIO](#) is a repository of data useful in biomedical research, compiled from multiple primary sources.

[Simple Search](#)[Templated Searches](#)[About](#)

▼ Advanced Options

Match Terms: ☒ any ☐ all

Exclude:

View: ☒ simple ☐ objects

Results per page: 5

3 [« Return to results](#)

### 1 Evidence

negationStatus	no
comments	putative diagnostic marker to distinguish between primary <b>ovarian serous carcinoma</b> (OSC) from primary uterine serous carcinoma (USC)
celllineStatus	no
sentenceStatus	finished
pubmedId	14764054
bigid	
sentence	AIMS: It has been suggested that WT-1 is helpful in distinguishing a primary <b>ovarian serous carcinoma</b> (OSC) from a primary uterine serous carcinoma (USC).

### External Links

2 • [Open this record in the caBIO Object Graph Browser](#)

You must scroll to the right, represented as the black double line breaks in the Browser record, and click the `getGeneFunctionAssociationCollection` method link (1, blue box). Next, click the `getGene` method link in the `GeneDiseaseAssociation` type object (2, blue box) to view the associated gene's full name and HUGO Gene Symbol in the `fullName` and `hugoSymbol` columns of the `Gene` type object (3, blue box).

Criteria: gov.nih.nci.cabio.domain.Evidence[@id=932369]								
1-1 of 1								
gov.nih.nci.cabio.domain.Evidence								
bigid	celllineStatus	comments	id	sentenceStatus	evidenceCodeCollection	geneFunctionAssociationCollection	interactionCollection	
-	no	-	932369	no_fact	<a href="#">getEvidenceCodeCollection</a>	<a href="#">getGeneFunctionAssociationCollection</a>	<a href="#">getInteractionCollection</a>	

1

Criteria: Evidence[@id=932369]							
1-1 of 1							
gov.nih.nci.cabio.domain.GeneDiseaseAssociation							
bigid	id	role	source	gene	evidenceCollection	diseaseOntology	
-	19658304	Not assigned	Cancer Gene Index	<a href="#">getGene</a>	<a href="#">getEvidenceCollection</a>	<a href="#">getDiseaseOntology</a>	

2

Criteria: GeneDiseaseAssociation[@id=19658304]							
gov.nih.nci.cabio.domain.Gene							
bigid	clusterId	fullName	hugoSymbol	id	symbol	geneFunctionAssociationCollection	
hdl://2500.1.PMEUQUCL5/77FY7S6DI	193717	Interleukin 10	IL10	9158	IL10	<a href="#">getGeneFunctionAssociationCollection</a>	

3

## Disease Ontologies

caBIO also contains disease ontology information. Should you wish to find parent and child concepts for your disease search term in order to perform additional searches using these disease terms (or, alternatively, navigate through the object model to find gene-disease association information for these disease terms), click [getDiseaseOntology](#) on the GeneDiseaseAssociation view (top panel, aqua box). You can find parent disease concepts by scrolling to the right and selecting the [getParentDiseaseOntologyRelationshipCollection](#) link (bottom panel, green box); child disease concepts can be accessed by clicking on the [getParentChildOntologyRelationshipCollection](#) link (bottom panel, blue box). Double black lines represent content in the object record that is not shown.

Criteria: Evidence[@id=932369]							
1-1 of 1							
gov.nih.nci.cabio.domain.GeneDiseaseAssociation							
bigid	id	role	source	gene	evidenceCollection	diseaseOntology	
-	19658304	Not assigned	Cancer Gene Index	<a href="#">getGene</a>	<a href="#">getEvidenceCollection</a>	<a href="#">getDiseaseOntology</a>	

Criteria: GeneDiseaseAssociation[@id=19658304]			
gov.nih.nci.cabio.domain.DiseaseOntology			
bigid	childDiseaseOntologyRelationshipCollection	histopathologyCollection	parentDiseaseOntologyRelationshipCollection
hdl://2500.1.PMEUQUCL5/TOIZ2HXAVR	<a href="#">getChildDiseaseOntologyRelationshipCollection</a>	<a href="#">getHistopathologyCollection</a>	<a href="#">getParentDiseaseOntologyRelationshipCollection</a>



### Warning!

caBIO may not always contain the most up-to-date disease ontology data from the NCI Thesaurus. If the disease concept of interest has neither parent nor child concepts, search the [NCI Thesaurus](#).

Should you wish to find parent and child concepts for your compound search term in order to perform additional searches using these disease terms, you must utilize the [NCI Thesaurus](#). To find [parent and child compound/agent concepts via the NCI Thesaurus, enter your compound/agent search term or concept code that you used for caBIO (1) and click the Search button (3).

## Welcome

Version: July 27, 2009 (09.09c)

NCI Thesaurus (NCIt) provides reference terminology for many NCI and other systems. It covers vocabulary for clinical care, translational and basic research, and public information and administrative activities.

### NCIt features:

- Stable, unique codes for biomedical concepts;
- Preferred terms, synonyms, definitions, research codes, external source codes, and other information;
- Links to [NCI Metathesaurus](#) and other information sources;
- Over 200,000 cross-links between concepts, providing formal logic-based definition of many concepts;
- Extensive content integrated from NCI and other partners, much available as separate NCIt [subsets](#)
- Updated frequently by a team of subject matter experts.

NCIt is a widely recognized standard for biomedical coding and reference, used by a broad variety of public and private partners both nationally and internationally.



[NCI Enterprise Vocabulary Services:](#) Terminology resources and services for NCI and the biomedical community.



[NCI Metathesaurus:](#) Comprehensive database of 4,600,000 terms from 70 terminologies.



[NCI BioPortal:](#) View NCI and other terminologies in an integrated ontology environment.



[NCI Terminology Resources:](#) More information on NCI dictionaries and resources.

From the compound/agent concept's NCI Thesaurus page, click on the Relationships tab (blue box) to view direct parent and child concepts or click the red View in Hierarchy button to find where the concept is located in the agent hierarchy (green box).

## Ovarian Serous Adenocarcinoma (Code C7550)

[Suggest changes to this concept](#)

Terms & Properties

Relationships

Synonym Details

View All

View in Hierarchy

View History

### Terms and Properties

**Definition:** Ovarian serous adenocarcinoma is a serous neoplasm characterized by nuclear atypia, high mitotic activity, stratification, glandular complexity, branching papillary fronds and stromal invasion. --2002

**Preferred Name:** Ovarian Serous Adenocarcinoma

**NCI Thesaurus Code:** C7550

**NCI Metathesaurus CUI:** CL028288 ([see NCI Metathesaurus info](#))

**Synonyms & Abbreviations:** ([see Synonym Details](#))

Ovarian Serous Adenocarcinoma

Ovarian Serous Carcinoma

Serous Adenocarcinoma of Ovary

Serous Adenocarcinoma of the Ovary

Serous Carcinoma of Ovary

Serous Carcinoma of the Ovary

**External Source Codes:**

NCI META CUI

CL028288 ([see NCI Metathesaurus info](#))

**Other Properties:**

Semantic\_Type

Neoplastic Process

**Additional Concept Data:**

**URL to Bookmark:** <http://ncit.nci.nih.gov/ncitbrowser/ConceptReport.jsp?dictionary=NCI%20Thesaurus&code=C7550>