**D02:** Find drug or class by keyword

This query enables search of vocabulary entities in the drug domain by keyword. The query does a search of standard concepts names in the DRUG domain including the following:

* RxNorm standard drug concepts
* ETC, ATC therapeutic classes
* NDF-RT mechanism of action, physiological effect, chemical structure concepts
* Synonyms of drug concepts
* Mapped drug codes from NDC, GPI, Multum, Multilex

**Sample query:**

SELECT c.concept\_id Entity\_Concept\_Id, c.concept\_name Entity\_Name, c.concept\_code Entity\_Code, 'Concept' Entity\_Type, c.concept\_class\_id Entity\_concept\_class\_id, c.vocabulary\_id Entity\_vocabulary\_id

FROM concept c

WHERE c.concept\_class\_id IS NOT NULL

AND c.vocabulary\_id in ('NDFRT','RxNorm','Indication','ETC','ATC','VA Class','GCN\_SEQNO')

AND REGEXP\_INSTR(LOWER(REPLACE(REPLACE(c.concept\_name, ' ', ''), '-', '')), LOWER(REPLACE(REPLACE('Lipitor', ' ', ''), '-', ''))) > 0

AND sysdate BETWEEN c.valid\_start\_date AND c.valid\_end\_date

UNION ALL

SELECT c.concept\_id Entity\_Concept\_Id, c.concept\_name Entity\_Name, c.concept\_code Entity\_Code, 'Mapped Code' Entity\_Type,

c.concept\_class\_id Entity\_concept\_class\_id, c.vocabulary\_id Entity\_vocabulary\_id

FROM concept\_relationship cr JOIN concept c ON c.concept\_id = cr.concept\_id\_1

AND cr.relationship\_id = 'Maps to'

AND c.vocabulary\_id IN ('NDC', 'GPI', 'Multum', 'Multilex', 'VA Product', 'MeSH', 'SPL')

AND REGEXP\_INSTR(LOWER(REPLACE(REPLACE(c.concept\_name, ' ', ''), '-', '')), LOWER(REPLACE(REPLACE('Lipitor', ' ', ''), '-', ''))) > 0

AND sysdate BETWEEN c.valid\_start\_date AND c.valid\_end\_date

UNION ALL

SELECT c.concept\_id Entity\_Concept\_Id, s.concept\_synonym\_name Entity\_Name, c.concept\_code Entity\_Code, 'Concept Synonym' Entity\_Type, c.concept\_class\_id Entity\_concept\_class\_id, c.vocabulary\_id Entity\_vocabulary\_id

FROM concept c, concept\_synonym s

WHERE S.concept\_id = c.concept\_id

AND c.vocabulary\_id in ('NDFRT','RxNorm','Indication','ETC','ATC','VA Class','GCN\_SEQNO')

AND c.concept\_class\_id IS NOT NULL

AND REGEXP\_INSTR(LOWER(REPLACE(REPLACE(s.concept\_synonym\_name, ' ', ''), '-', '')), LOWER(REPLACE(REPLACE(

'Lipitor'

, ' ', ''), '-', ''))) > 0

AND sysdate BETWEEN c.valid\_start\_date AND c.valid\_end\_date;

**Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Example** | **Mandatory** | **Notes** |
| Keyword | 'Lipitor' | Yes | Keyword should be placed in single quote |
| As of date | Sysdate | No | Valid record as of specific date. Current date – sysdate is a default |

**Output:**

|  |  |
| --- | --- |
| **Field** | **Description** |
| Entity\_Concept\_ID | Concept ID of entity with string match on name or synonym concept |
| Entity\_Name | Concept name of entity with string match on name or synonym concept |
| Entity\_Code | Concept code of entity with string match on name or synonym concept |
| Entity\_Type | Type of entity with keyword match, includes one of the following:   * Concept * Concept Synonym * Mapped Code |
| Entity\_Concept\_Class | Concept class of entity with string match on name or synonym concept |
| Entity\_Vocabulary\_ID | Vocabulary the concept with string match is derived from as vocabulary ID |
| Entity\_Vocabulary\_Name | Name of the vocabulary the concept with string match is derived from as vocabulary code |

**Sample output record:**

|  |  |
| --- | --- |
| **Field** | **Value** |
| Entity\_Concept\_ID | 1545999 |
| Entity\_Name | atorvastatin 20 MG Oral Tablet [Lipitor] |
| Entity\_Code | 617318 |
| Entity\_Type | Concept |
| Entity\_Concept\_Class | Branded Drug |
| Entity\_Vocabulary\_ID | 8 |
| Entity\_Vocabulary\_Name | RxNorm |