



USGENE® on STN®

USGENE® covers all available peptide and nucleic acid sequences from the published applications and issued patents of the United States Patent and Trademark Office (USPTO). Sequence data are available within only 3 days of publication by the USPTO.

USGENE is the new unparalleled resource for

- Freedom-to-operate, prior-art, validity and infringement patent sequence searches
- Competitive analysis of organizations with biosequence patents
- Current awareness alerts (SDIs) from the very latest USPTO sequence data

USGENE offers three sequence searching methods

- BLAST for advanced similarity searching based on NCBI BLAST® algorithm
- GETSIM for advanced similarity searching based on FASTA algorithm
- GETSEQ for simple fragment or motif sequence queries

Biosequences in USGENE

- Peptide and nucleic acid sequences from 1982 to date
- From all relevant USPTO published applications and issued patents
- Organism name, sequence length and SEQ ID number
- Feature tables for modifications and other features
- Typically available within 3 days of publication by the USPTO

USGENE records also contain

- Original publication title, abstract and claims
- Patent assignees and full inventor names
- Publication, application and parent case WIPO/PCT numbers and dates
- Full-text links to the USPTO

The USPTO Genetic Sequence Database, USGENE®, is produced by the SequenceBase Corporation and provided on STN as file USGENE. STN is operated by FIZ Karlsruhe and CAS worldwide and is represented in Japan by JAICI.

L1 ANSWER 1 OF 1 USGENE COPYRIGHT 2008 SEQUENCEBASE CORP on STN
 ACCESSION NUMBER: 7323541.51 **1** Protein **2** USGENE
 TITLE: **3** Polypeptide DNA thereof and use of the same (Patent)
 INVENTOR(S): Mori Masaaki (Ibaraki, JP); Hayashi Kozo (Ibaraki, JP);
 Miya Hiroyuki (Ibaraki, JP); Sato Shuji (Ibaraki, JP);
 Kitada Chieko (Osaka, JP); Matsumoto Hirokazu (Ibaraki, JP);
 Nagi Toshimi (Ibaraki, JP); Shimomura Yukio (Ibaraki, JP)
 PATENT ASSIGNEE: Takeda Pharmaceutical Company Limited (Osaka JP)
 PATENT INFORMATION: US 7323541 B2 20080129
 US 20050048605 A1 20050303
 WO 2003025179 A 20030327 **4**
 APPLICATION INFO: US 2002-489537 20020913
 REL APPL INFO: WO 2002-JP9446 20020913
 ENTRY DATE: 20080201
 DOCUMENT TYPE: Patent

5 ABSTRACT: The present invention aims at providing a novel polypeptide, a receptor, a DNA thereof, and the like. Specifically, the present invention provides a polypeptide having a binding ability to the protein represented by SEQ ID NO: 1 or SEQ ID NO: 3, or its amide, its ester or its salt, a polynucleotide encoding the polypeptide, an antisense polynucleotide or an antibody to the polypeptide, a screening of agent for prevention and/or treatment of cancer, obesity, etc., which comprises using the above, and the like. The polypeptide, receptor, polynucleotide, antisense polynucleotide, antibody and the like are useful for an agent of prevention and/or treatment of cancer, obesity and the like. Further, they are useful for a screening of an agent for prevention and/or treatment of cancer, obesity and the like.

CLAIM: US7323541 B2: 1. An isolated polypeptide, which is a ligand for and has an ability to bind to a G protein-coupled receptor protein comprising the amino acid sequence represented by SEQ ID NO: 1 or SEQ ID NO: 3, or a salt thereof, its amide or its ester, or salts thereof, and wherein the isolated polypeptide comprises the amino acid sequence represented by SEQ ID NO: 23, its amide or its ester, or salts thereof. **6**

2. A pharmaceutical composition comprising the polypeptide of SEQ ID NO: 23, its amide or its ester, or salts thereof.

3. A kit for screening a compound that enhances or inhibits the activity of the polypeptide of SEQ ID NO: 23, its amide or its ester, or salts thereof, which comprises the polypeptide according to claim 1, its amid or its ester, or salts thereof.

4. The kit for screening according to claim 3, which further comprises a protein comprising the amino acid sequence represented by SEQ ID NO: 1 or SEQ ID NO: 3, its amide or its ester, or salts thereof.

5. The kit for screening according to claim 4, which comprises the protein comprising the amino acid sequence represented by SEQ ID NO: 3, its amide or its ester, or salts thereof.

6. The kit for screening according to claim 4, which comprises cells that contain the protein comprising the amino acid sequence represented by SEQ ID NO: 1 or SEQ ID NO: 3, its amide or its ester, or salts thereof.

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SEQUENCE SOURCE: PROTEIN; USPTO; GRANTED **7**
 ORGANISM NAME: Human
 SEQUENCE LENGTH: 371 **8**
 SEQUENCE:

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1 mpanftegsf dssgtgqtl d sspvactetv tftvevvegke wgsfyysfkt
51 eqlitlwvlf vftivgnsfv lfstwrkkk srmtffvtql aitdsftglv
101 niltdinwrf tgdf tapdlv crvvrylqv llyastyvlv slsidryhai 9
151 vypmkflgqe kqarvllivia wslsflfsip tliifgkrtl sngevqcwal
201 wpddsywtpy mtivaflyvf ipltiisimy givirtiwiw sktyetvisn
251 csdgklcssy nrgliskaki kaXkysi iiii laficcwspy flfdildnfn
301 llpdtqeXfy asviiqnlpa lnsainplyi cvfsssisfp crerrsqdsr
351 mtfreterth emqilskpef i
  
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FEATURE TABLE:
 Key |Location| **10**
 =====+=====+=====
 VARIANT |273 |Xaa is Val or Ile.

- 1** USGENE Accession Number (AN), including the sequence identity number (SEQ ID NO)
- 2** Molecule Type (MTY)
- 3** Original patent title
- 4** Bibliographic information – Publication, application, assignee & inventor data
- 5** Original patent abstract
- 6** Full patent claims
- 7** Sequence source – Nucleic or Protein; PSIPS/USPTO, NCBI, etc; Granted or Application
- 8** Sequence Length
- 9** Patent sequence – each USGENE record is based upon a sequence
- 10** Feature table - includes sequence modifications and other features, as provided by the patent applicant

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