GENESEQ™ on STN®

GENESEQ™ (file DGENE) covers peptide and nucleic acid sequences from the basic patent publications of 52 authorities of the Derwent World Patents Index (DWPI).

DGENE offers three sequence searching methods

- BLAST for advanced similarity searching based on NCBI BLAST® algorithm
- GETSIMfor advanced similarity searching based on FASTA algorithm
- GETSEQ for simple fragment ormotif sequence queries

Biosequences in DGENE

- Peptide and nucleic acid sequences from1981 to date
- From the basic patent publications of 41 authorities of DWPI
- Organism and sequence length
- Feature tables formodifications and other features

DGENE records also provide

- English abstracts written per sequence by Clarivate Analytics experts
- Enhanced patent titles and bibliographic data fromDWPI
- Integrated Patent Family and Legal Status display
- Full-text links to Esp@cenet and the USPTO

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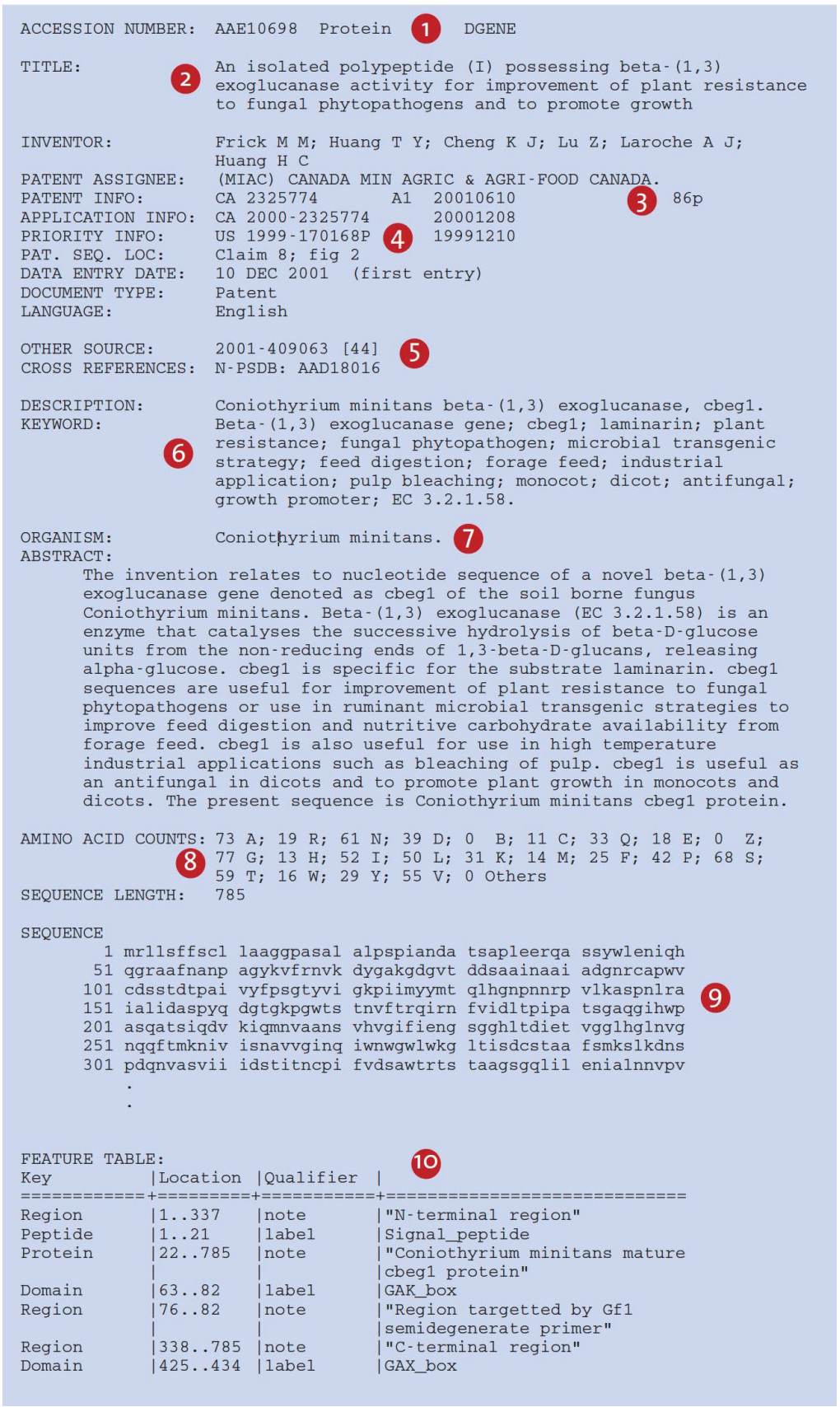

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ACCESSION NUMBER:  AAE10698  Protein  (1)  DGENE

TITLE:          (2) An isolated polypeptide (I) possessing beta-(1,3)
                    exoglucanase activity for improvement of plant resistance
                    to fungal phytopathogens and to promote growth

INVENTOR:           Frick M M; Huang T Y; Cheng K J; Lu Z; Laroche A J;
                    Huang H C
PATENT ASSIGNEE:    (MIAC) CANADA MIN AGRIC & AGRI-FOOD CANADA.
PATENT INFO:        CA 2325774        A1  20010610          (3) 86p
APPLICATION INFO:   CA 2000-2325774       20001208
PRIORITY INFO:      US 1999-170168P  (4)  19991210
PAT. SEQ. LOC:      Claim 8; fig 2
DATA ENTRY DATE:    10 DEC 2001  (first entry)
DOCUMENT TYPE:      Patent
LANGUAGE:           English

OTHER SOURCE:       2001-409063 [44]  (5)
CROSS REFERENCES:   N-PSDB: AAD18016

DESCRIPTION:        Coniothyrium minitans beta-(1,3) exoglucanase, cbeg1.
KEYWORD:            Beta-(1,3) exoglucanase gene; cbeg1; laminarin; plant
                (6) resistance; fungal phytopathogen; microbial transgenic
                    strategy; feed digestion; forage feed; industrial
                    application; pulp bleaching; monocot; dicot; antifungal;
                    growth promoter; EC 3.2.1.58.

ORGANISM:           Coniothyrium minitans. (7)
ABSTRACT:
      The invention relates to nucleotide sequence of a novel beta-(1,3)
      exoglucanase gene denoted as cbeg1 of the soil borne fungus
      Coniothyrium minitans. Beta-(1,3) exoglucanase (EC 3.2.1.58) is an
      enzyme that catalyses the successive hydrolysis of beta-D-glucose
      units from the non-reducing ends of 1,3-beta-D-glucans, releasing
      alpha-glucose. cbeg1 is specific for the substrate laminarin. cbeg1
      sequences are useful for improvement of plant resistance to fungal
      phytopathogens or use in ruminant microbial transgenic strategies to
      improve feed digestion and nutritive carbohydrate availability from
      forage feed. cbeg1 is also useful for use in high temperature
      industrial applications such as bleaching of pulp. cbeg1 is useful as
      an antifungal in dicots and to promote plant growth in monocots and
      dicots. The present sequence is Coniothyrium minitans cbeg1 protein.

AMINO ACID COUNTS: 73 A; 19 R; 61 N; 39 D; 0  B; 11 C; 33 Q; 18 E; 0  Z;
                (8) 77 G; 13 H; 52 I; 50 L; 31 K; 14 M; 25 F; 42 P; 68 S;
                    59 T; 16 W; 29 Y; 55 V; 0 Others
SEQUENCE LENGTH:    785

SEQUENCE
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       51 qgraafnanp agykvfrnvk dygakgdgvt ddsaainaai adgnrcapwv
      101 cdsstdtpai vyfpsgtyvi gkpiimyymt qlhgnpnnrp vlkaspnlra  (9)
      151 ialidaspyq dgtgkpgwts tnvftrqirn fvidltpipa tsgaqgihwp
      201 asqatsiqdv kiqmnvaans vhvgifieng sgghltdiet vgglhglnvg
      251 nqqftmkniv isnavvginq iwnwgwlwkg ltisdcstaa fsmkslkdns
      301 pdqnvasvii idstitncpi fvdsawtrts taagsgqlil enialnnvpv
          .
          .


FEATURE TABLE:                                  (10)
Key          |Location  |Qualifier  |
=============+==========+===========+============================
Region       |1..337    |note       |"N-terminal region"
Peptide      |1..21     |label      |Signal_peptide
Protein      |22..785   |note       |"Coniothyrium minitans mature
             |          |           |cbeg1 protein"
Domain       |63..82    |label      |GAK_box
Region       |76..82    |note       |"Region targetted by Gf1
             |          |           |semidegenerate primer"
Region       |338..785  |note       |"C-terminal region"
Domain       |425..434  |label      |GAX_box
```

1. Molecule Type (MTY)
2. Clarivate Analytics enhanced patent title describing the over all invention
3. Bibliographic information – Publication, application, assignee & inventor data
4. Patent Sequence Location – claim, example, etc
5. Other Source accession number – link to Derwent World Patents Index® patent family data
6. Clarivate Analytics description, keywords and enhanced abstract describe the context and use of each patent sequence
7. Organism – latin genus & species, fromwhich the sequence is derived
8. Sequence Length and individual amino acid & nucleotide count fields
9. Patent sequence – each DGENE record is based upon a sequence
10. Feature table – includes modifications and features added by the applicant, and by the Clarivate Analytics Analyst