

| INFORME DE BÚSQUEDA DE PATENTES PARA EL No de Radicación: 06-110105                                   |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------|------------------------------------------------------------------|----|
| CRITERIOS PARA LA BÚSQUEDA (anexar pantallazo o reporte en PDF, junto con los boleanos utilizados)    |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| Palabras clave utilizadas                                                                             |                                                         | “herbicide tolerant plants” “2,4-D resistant plants”                                                                                                                                                                                                                                        |                 |                                   |                                                                  |    |
| CLASIFICACIONES INTERNACIONALES UTILIZADAS PARA LA BÚSQUEDA                                           |                                                         | A01/H 5/00                                                                                                                                                                                                                                                                                  |                 |                                   |                                                                  |    |
| BASES DE DATOS CONSULTADAS.                                                                           |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| Google patents                                                                                        |                                                         | Espacenet                                                                                                                                                                                                                                                                                   |                 | USPTO                             | PatBase                                                          |    |
| NCBI                                                                                                  |                                                         | The lens                                                                                                                                                                                                                                                                                    |                 | WIPO                              | Pubmed                                                           |    |
| INFORMES DE EXÁMENES REALIZADOS EN OTRAS OFICINAS (documentos patentes, literatura no patente etc...) |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| Oficina                                                                                               | Fecha del examen o de reporte de búsqueda de documentos | Anterioridades encontradas para el examen o reportados en el examen de búsqueda(relacionarlos todos)                                                                                                                                                                                        | Reiv. afectadas | RELEVANCIA (requisito que afecta) | FUERON TENIDOS EN CUENTA PARA EL EXAMEN EN LA OFICINA COLOMBIANA |    |
|                                                                                                       |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   | SI                                                               | NO |
| EUROPEA                                                                                               | 01/Noviembre/2006                                       | WO 9802562<br>WO 03034813                                                                                                                                                                                                                                                                   | NA              | A                                 |                                                                  | X  |
|                                                                                                       |                                                         | VAN DER MEER J R, ET AL<br>Sphingomonas herbicidovorans trnPA gene for transposase and rdpA gene for (R)-2-(2,4-dichlorophenoxy)propionate,2-oxoglutarate dioxygenase<br>SCHLEINITZ K M, ET AL<br>Rhodoferax sp. P230 R-2,4-dichlorophenoxypropionate dioxygenase (rdpA) gene, complete cds | 1 a 12          | Novedad                           | X                                                                |    |
| USPTO                                                                                                 | 22/05/2008                                              | US 2003041357<br>US 5608147                                                                                                                                                                                                                                                                 | 23-68           | Nivel inventivo                   | X                                                                |    |
|                                                                                                       |                                                         | Spencer et al 1992 Plant Molecular Biology 18: 201-210                                                                                                                                                                                                                                      |                 |                                   |                                                                  | X  |
|                                                                                                       |                                                         | Kohler 1999 J. Industrial Microbiology & Biotechnology 23: 336-340<br>van der Meer, Mar. 3, 2004, Genbank Accession No. AJ628859, NCBI-National Library of Medicine USA, Bethesda, Maryland                                                                                                 |                 |                                   |                                                                  | X  |
| DOCUMENTOS ADICIONALES ENCONTRADOS POR EL EXAMINADOR DE ACUERDO A LOS CRITERIOS DE BÚSQUEDA.          |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| WO 1998020144                                                                                         |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| BÚSQUEDA DE SECUENCIAS                                                                                |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| Número de depósito / patente y N° de secuencia<br>% de identidad                                      |                                                         |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| SEQ ID NO (de la solicitud)                                                                           | NCBI                                                    | The Lens                                                                                                                                                                                                                                                                                    | EMBL-EBI        | DDJB                              | Genome Quest                                                     |    |
| 3                                                                                                     | GI:22087568                                             |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
|                                                                                                       | 99% cobertura 97%                                       |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| 4                                                                                                     | GI:22087568                                             |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
|                                                                                                       | 99% cobertura 98%                                       |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |
| 9                                                                                                     | GI:22087568                                             |                                                                                                                                                                                                                                                                                             |                 |                                   |                                                                  |    |

|  |                     |  |  |  |  |
|--|---------------------|--|--|--|--|
|  | 100% cobertura 100% |  |  |  |  |
|--|---------------------|--|--|--|--|

## CRITERIOS DE BÚSQUEDA / UNIDAD DE INVENCIÓN (Pantallazos)

# Percent Identity Matrix - created by Clustal2.1

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1: SEQ_ID_NO_3 100.00 99.44 77.86
2: SEQ_ID_NO_4 99.44 100.00 77.93
3: SEQ_ID_NO_5 77.86 77.93 100.00

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CLUSTAL 2.1 multiple sequence alignment

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SEQ_ID_NO_4      -----CCATG---GCTGCTGCACTGTCCCCCTCTCCCAGCGCTTTGAG 41
SEQ_ID_NO_5      -----CCATGGCTCATGTGCCTCAGCCCTCTCTCCCAACGCTTTGAG 44
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SEQ_ID_NO_3      CGCATCGCGGTCCAGCCGTGACCGGCGCTCTGGGCGCCGAGATCACCGGCGTCGACCTG 117
SEQ_ID_NO_4      CGCATCGCGGTCCAGCCGTGACCGGCGCTCTGGGCGCCGAGATCACCGGCGTCGACCTG 101
SEQ_ID_NO_5      AGAATAGCTGTCCAGCCACTCACTGGTGTCTTGGTGTGAGATCACTGGAGTGGACTG 104
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SEQ_ID_NO_3      CGCGAGCCGCTCGACGACAGCACCTGGAACGAAATCCTCGACGCGTTCCACACTTACCAG 177
SEQ_ID_NO_4      CGCGAGCCGCTCGACGACAGCACCTGGAACGAAATCCTCGACGCGTTCCACACTTACCAG 161
SEQ_ID_NO_5      AGGGAACCACTTGATGACAGCACCTGGAATGAGATATTGGATGCCTTCCACACTTACCAA 164
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SEQ_ID_NO_4      GTCATCTATTTTCCCGGCCAGGCGATACCAACGAACAGCACATCGCCTTCAGCCGGCGC 221
SEQ_ID_NO_5      GTCATCTACTTTCTTGGCCAAGCAATACCAATGAGCAGCACATTCATCTCAAGAAGG 224
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SEQ_ID_NO_3      TTCGGCCCCGTCGATCCCGTGCCCTGTCTCAAGAGCATCGAAGGGTATCCAGAGGTGCAG 297
SEQ_ID_NO_4      TTCGGCCCCGTCGATCCCGTGCCCTGTCTCAAGAGCATCGAAGGGTATCCAGAGGTGCAG 281
SEQ_ID_NO_5      TTTGGACCAGTTGATCCAGTGCTCTTCTCAAGAGCATGAAGGCTATCCAGAGGTTCAG 284
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SEQ_ID_NO_3      ATGATCCGCCGCGAAGCCAACGAAAGCGGGCGTGTGATCGGTGAYGACTGGCACACCGAC 357
SEQ_ID_NO_4      ATGATCCGCCGCGAAGCCAACGAAAGCGGGCGTGTGATCGGTGATGACTGGCACACCGAC 341
SEQ_ID_NO_5      ATGATCCGCAGAGAAGCCAATGAGTCTGGAAGGGTGATTGGTGTGACTGGCACACAGAC 344
                  *****.*.***** **.*: **.* ***** ***** ***** *****

SEQ_ID_NO_3      AGCACCTTCCTGGACGCACCGCCGGCCGCGTGGTGATGCGCGCGATCGACGTGCCCGAG 417
SEQ_ID_NO_4      AGCACCTTCCTGGACGCACCGCCGGCCGCGTGGTGATGCGCGCGATCGACGTGCCCGAG 401
SEQ_ID_NO_5      TCCACTTTCTTGATGCACCTCCAGCTGCTGTTGTGATGAGGGCCATAGATGTCCTGAG 404
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SEQ_ID_NO_5      CATGGCGGAGACACTGGGTTCTTCAATGTACACAGCTTGGGAGACCTTGTCTCCAACC 464
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SEQ_ID_NO_4      ATGCAGGCCACCATCGAAGGGTTGAACGTAGTGACAGCGCCACGCGTGTGTTGCGCTCG 521
SEQ_ID_NO_5      ATGCAAGCCACCATCGAAGGGCTCAACGTGTGCACTTGCCACACGTTGTTCGGTTCC 524
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SEQ_ID_NO_3      CTCTACCAGGCCAGAACCGGCGCTTCAGCAACACCAGCGTCAAGGTGATGGACGTCGAC 597
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SEQ_ID_NO_5      CTCTACCAAGCACAGAACCGTCGCTTCAGCAACACCTCAGTCAAGGTGATGGATGTTGAT 584
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SEQ_ID_NO_3      GCGGGCGACCGTGAAACCGTGCACCCCTTGGTGGTGACCCATCCGGGCAGCGGCGCAAG 657
SEQ_ID_NO_4      GCGGGCGACCGTGAAACCGTGCACCCCTTGGTGGTGACCCATCCGGGCAGCGGCGCAAG 641

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SEQ\_ID\_NO\_5 GCTGGTGACAGAGAGACAGTCCATCCCTTGGTTGTGACTCATCCTGGCTCTGGAAGGAAA 644  
\*\* \*\* \*\*\*.\*:\*.\*\*.\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\*

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SEQ\_ID\_NO\_5 GGCCTTTATGTGAATCAAGTCTACTGTGAGAGAAATTGAGGGCATGACAGATGCAGAATCA 704  
\*\*\*\*\* \*\* \*\*\*\*\* \*\*.\*\*\*\*\*\* \*\* \*\*\*.\*\* \*\*\*\*\*.\*\*\*\*\*.\*\*\*: .

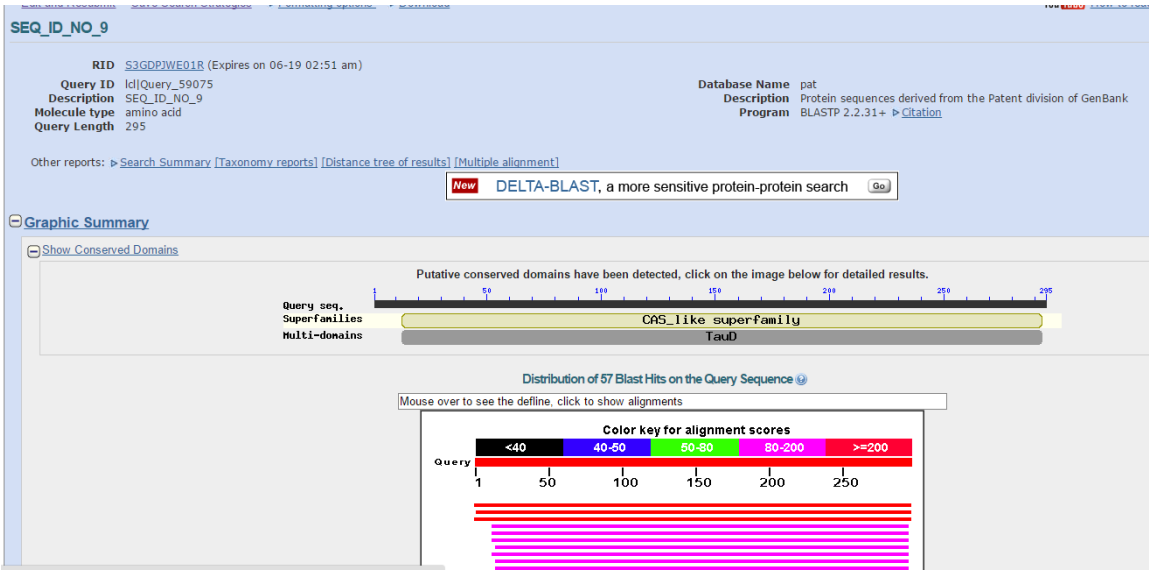
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SEQ\_ID\_NO\_5 AAGCCATTGCTTCAGTTCCTCTATGAGCATGCCACCAGATTTGACTTCACCTTGCCGTGTG 764  
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SEQ\_ID\_NO\_3 CGCTGGAAGAAGGACCAGTCTGGTCTGGGACAACCTGTGCACGATGCACCGGGCCGTA 837  
SEQ\_ID\_NO\_4 CGCTGGAAGAAGGACCAGTCTGGTCTGGGACAACCTGTGCACGATGCACCGGGCCGTA 821  
SEQ\_ID\_NO\_5 AGGTGGAAGAAAGACCAAGTCCTTGTCTGGGACAACCTGTGCACCATGCACCGTGTGTT 824  
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SEQ\_ID\_NO\_3 CCCGACTACGCGGGCAAGTTCGCTACCTGACGCGCACACGGTCGGTGGCGTGCGCCCG 897  
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\*\* \*\*\*\*\* \*\* \*\*\*\*\*.\*.\*\*\* \*\* \*\* \*\*\*\*\*.\*.\*\*\*\*\*.\*. \*\*

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SEQ\_ID\_NO\_4 GCGCGC---TAGTGAGCTC----- 897  
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Pantallazos Búsqueda



SEQ\_ID\_NO\_9

RID

S3GHEPDR015

(Expires on 06-19 02:53 am)

Query ID

IdlQuery\_58835

Description

SEQ\_ID\_NO\_9

Molecule type

amino acid

Query Length

295

Database Name

nr

Description

All non-redundant GenBank CDS translations+PDB+S

Program

BLASTP 2.2.31+ > Citation

Other reports:

> Search Summary

> Taxonomy reports

> Distance tree of results

> Related Structures

> Multiple alignment

Now

DELTA-BLAST, a more sensitive protein-protein search

Go

Graphic Summary

Show Conserved Domains

Putative conserved domains have been detected, click on the image below for detailed results.

Query seq.

Superfamilies

Multi-domains

CAS\_like superfamily

TauD

Distribution of 100 Blast Hits on the Query Sequence

Mouse-over to show define and scores, click to show alignments

Color key for alignment scores

<40

40-50

50-80

80-200

>=200

Query

1

50

100

150

200

250

BLAST Results (AA) (search details)

Location in Document

Grants, in claims (9) ☒

Grants (24) ☒

Applications, in claims (19) ☒

Applications (48) ☒

1aa

30aa

60aa

89aa

119aa

148aa

177aa

207aa

236aa

260aa

295aa

Document #

Seq ID

E-Value

Similarity

Coverage

JP 2011200240 A

27

0E0

99.3

100

JP 2007535327 A

27

0E0

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US 8748700 B2

2

0E0

99.3

100

SEQ\_ID\_NO\_3

RID

S3GWSGUG01R

(Expires on 06-19 02:59 am)

Query ID

IdlQuery\_62689

Description

SEQ\_ID\_NO\_3

Molecule type

nucleic acid

Query Length

915

Database Name

pat

Description

Nucleotide sequences derived from the Patent division of GenBank

Program

BLASTN 2.2.31+ > Citation

Other reports:

> Search Summary

> Taxonomy reports

> Distance tree of results

Graphic Summary

Distribution of 12 Blast Hits on the Query Sequence

Mouse over to see the define, click to show alignments

Color key for alignment scores

<40

40-50

50-80

80-200

>=200

Query

1

150

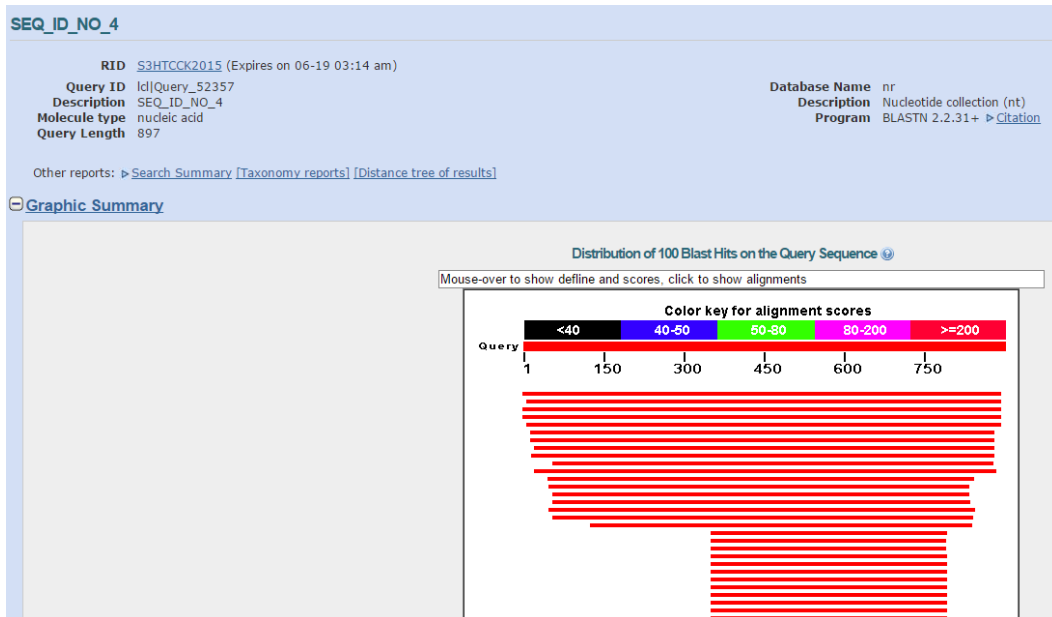
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450

600

750

900



**SEQ\_ID\_NO\_5**

RID [S3JOUK0H015](#) (Expires on 06-19 03:18 am)

Query ID [IdlQuery\\_59719](#)  
Description [SEQ\\_ID\\_NO\\_5](#)  
Molecule type nucleic acid  
Query Length 919

Database Name [nr](#)  
Description [Nucleotide collection \(nt\)](#)  
Program [BLASTN 2.2.31+](#) [► Citation](#)

**No significant similarity found. For reasons why, [click here](#)**

Other reports: [► Search Summary](#)



| Menu ▾ Search ▾ History ▾ Session ▾ Folder ▾ Order ▾ Help ▾ Logoff                  |                                                                           |         |                                                                                                                           |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------|
| Search 2: (1) AND PD=(2003 OR 2004 OR 1997 OR 1998 OR 1999 OR 2000 OR 2001 OR 2002) |                                                                           |         | Explore se                                                                                                                |
| Results 329                                                                         |                                                                           |         |                                                                                                                           |
| #                                                                                   | Search query                                                              | Results | Options                                                                                                                   |
| 2                                                                                   | (1) AND PD=(2003 OR 2004 OR 1997 OR 1998 OR 1999 OR 2000 OR 2001 OR 2002) | 329     | <a href="#">View</a>   <a href="#">Browse</a>   <a href="#">Hits</a>   <a href="#">Optimise</a>   <a href="#">more...</a> |
| 1                                                                                   | TAC=(Plant and resistant and herbicide) and PD>2004 and IC=(A01H5/00)     | 2364    | <a href="#">View</a>   <a href="#">Browse</a>   <a href="#">Hits</a>   <a href="#">Optimise</a>   <a href="#">more...</a> |