## OrygenesDB RDF model documentation

**O.s.inidica:**

The RDF model corresponds to OrygenesDB data for **O.s.inidica** species (gff3 files).

The URI pattern, otology terms and predicates are as follows:

**Resource:**

Chromosome:

[http://www.southgreen.fr/agrold/orygenesdb.chromosome/**[ID**](http://www.southgreen.fr/agrold/orygenesdb.chromosome/%5bID)**]**

e.g.: [*http://www.southgreen.fr/agrold/orygenesdb.chromosome/Osi01*](http://www.southgreen.fr/agrold/orygenesdb.chromosome/Osi01)

**BGI.gff3:**

BGI- gene (ensemble.plants):

[http://identifiers.org/ensembl.plant/**[ID**](http://identifiers.org/ensembl.plant/%5bID)**]**

e.g.: <http://identifiers.org/ensembl.plant/BGIOSGA000001>

BGI-mRNA:

[http://www.southgreen.fr/agrold/orygenesdb.mrna/[ID](http://www.southgreen.fr/agrold/orygenesdb.mrna/%5bID)]

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.mrna/BGIOSGA000001-TA>

BGI-CDS:

[http://www.southgreen.fr/agrold/orygenesdb/**[BGI-mrna-ID]** **\_CDS \_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bBGI-mrna-ID%5d_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA\_CDS \_1](http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA_1)

[http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA\_CDS \_2](http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA_2)

BGI-exon:

[http://www.southgreen.fr/agrold/orygenesdb/**[BGI-mrna-ID]\_exon\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bBGI-mrna-ID%5d_exon_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA\_ exon \_1](http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA_CDS_1)

[http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA\_exon \_2](http://www.southgreen.fr/agrold/orygenesdb/BGIOSGA000001-TA_exon%20_2)

BGI-protein:

[http://www.southgreen.fr/agrold/orygenesdb.protein/[ID](http://www.southgreen.fr/agrold/orygenesdb.protein/%5bID)]

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.protein/BGIOSGA000001-TA_protein>

**cDNA\_indica.gff3:**

cDNA (EST\_match):

[http://www.southgreen.fr/agrold/orygenesdb.cdna/**[cDNA-ID]**](http://www.southgreen.fr/agrold/orygenesdb.cdna/%5bcDNA-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.cdna/cDNA_indica_CT830828>

cDNA (match\_part):

[http://www.southgreen.fr/agrold/orygenesdb/**[cDNA-ID]\_match\_part\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bcDNA-ID%5d_match_part_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/cDNA_indica_CT830828_match_part_1>

<http://www.southgreen.fr/agrold/orygenesdb/cDNA_indica_CT830828_match_part_2>

**OMAP.gff3:**

OMAP (Match):

[http://www.southgreen.fr/agrold/orygenesdb/**[OMAP-ID]**](http://www.southgreen.fr/agrold/orygenesdb/%5bOMAP-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/OA_ABa_CW652074>

OMAP (match\_part):

[http://www.southgreen.fr/agrold/orygenesdb/**[OMAP-ID]\_match\_part\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bcDNA-ID%5d_match_part_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/OA_ABa_CW652074_match_part_1>

**Marker.gff3:**

OMAP (Match):

[http://www.southgreen.fr/agrold/orygenesdb.marker/**[Marker-ID]**](http://www.southgreen.fr/agrold/orygenesdb.marker/%5bMarker-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.marker/R687>

**Ontology terms:**

Chromosome: obo:SO\_0000430

Gene: obo:SO\_0000704

mRNA: obo:SO\_0000234

Protein (polypeptide): obo:SO\_0000104

CDS: obo:SO\_0000316

Exon: obo:SO\_0000147

Match: obo:SO\_0000343

Match\_part: obo:SO\_0000039

EST\_match: obo:SO\_0000668

**Predicates to be used (check rdf model):**

**URI:** <http://www.southgreen.fr/agrold/vocabulary/>

is\_located\_on

develops\_from

derives\_from

part\_of

source\_project

has\_start\_position

has\_end\_position

**O.s.japonica:**

The RDF model corresponds to OrygenesDB data for **O.s.japonica** species (gff3 files).

The URI pattern, otology terms and predicates are as follows:

**Resource:**

Chromosome:

[http://www.southgreen.fr/agrold/orygenesdb.chromosome/**[ID**](http://www.southgreen.fr/agrold/orygenesdb.chromosome/%5bID)**]**

e.g.: [*http://www.southgreen.fr/agrold/orygenesdb.chromosome/Os01*](http://www.southgreen.fr/agrold/orygenesdb.chromosome/Os01)

**RAPDB.gff3:**

RAPDB- gene (ensembl.plants):

[http://identifiers.org/ensembl.plant/**[ID**](http://identifiers.org/ensembl.plant/%5bID)**]**

**Note: the gene id should be in uppercase: Os01g0100100 -> OS01G0100100**

e.g.: <http://identifiers.org/ensembl.plant/OS01G0100100>

RAPDB -mRNA:

[http://www.southgreen.fr/agrold/orygenesdb.mrna/[ID](http://www.southgreen.fr/agrold/orygenesdb.mrna/%5bID)]

e.g.: [http://www.southgreen.fr/agrold/orygenesdb.mrna/OS01T0100100-01](http://www.southgreen.fr/agrold/orygenesdb.mrna/OS01T0100100-01%20)

RAPDB-CDS:

[http://www.southgreen.fr/agrold/orygenesdb/**[RAPDB-mrna-ID]** **\_CDS \_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bRAPDB-mrna-ID%5d%20_CDS%20_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01 \_CDS \_1](http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01%20_CDS%20_1)

[http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01 \_CDS \_2](http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01%20_CDS%20_2)

RAPDB-exon:

[http://www.southgreen.fr/agrold/orygenesdb/**[RAPDB-mrna-ID]\_exon\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bRAPDB-mrna-ID%5d_exon_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01\_exon \_1](http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_exon%20_1)

[http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01\_exon \_2](http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_exon%20_2)

RAPDB –three\_prime\_UTR:

[http://www.southgreen.fr/agrold/orygenesdb/**[RAPDB -mrna-ID]\_three\_prime\_UTR\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bRAPDB%20-mrna-ID%5d_three_prime_UTR_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_3_prime_UTR_1>

<http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_3_prime_UTR_2>

RAPDB - five\_prime\_UTR:

[http://www.southgreen.fr/agrold/orygenesdb/**[RAPDB -mrna-ID]\_five\_prime\_UTR\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bRAPDB%20-mrna-ID%5d_five_prime_UTR_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_5_prime_UTR_1>

<http://www.southgreen.fr/agrold/orygenesdb/OS01T0100100-01_5_prime_UTR_2>

RAPDB -protein:

[http://www.southgreen.fr/agrold/orygenesdb.protein/[ID](http://www.southgreen.fr/agrold/orygenesdb.protein/%5bID)]

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.protein/OS01T0100100-01_pep>

**KOME.gff3:**

cDNA (cDNA\_match):

[http://www.southgreen.fr/agrold/orygenesdb.cdna/**[cDNA-ID]**](http://www.southgreen.fr/agrold/orygenesdb.cdna/%5bcDNA-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.cdna/AK121582>

cDNA (match\_part):

[http://www.southgreen.fr/agrold/orygenesdb/**[cDNA-ID]\_match\_part\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bcDNA-ID%5d_match_part_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/AK121582_match_part_1>

<http://www.southgreen.fr/agrold/orygenesdb/AK121582_match_part_2>

**miRNA.gff3:**

miRNA(miRNA\_primary\_transcript):

[http://identifiers.org/mirbase/**[miRNA\_primary\_transcript-ID]**](%20http://identifiers.org/mirbase/%5bmiRNA_primary_transcript-ID%5d)

e.g.:  [http://identifiers.org/mirbase/MI0008244](%20http://identifiers.org/mirbase/MI0008244)

miRNA:

[http://identifiers.org/mirbase.mature/**[miRNA-ID**](http://identifiers.org/mirbase.mature/%5bmiRNA-ID)**]**

e.g.: [h ttp://identifiers.org/mirbase.mature/MIMAT0007792](http://www.southgreen.fr/agrold/orygenesdb/MIMAT0007792%20)

**SBGI.gff3:**

SBGI (EST\_match):

[http://www.southgreen.fr/agrold/orygenesdb/**[SBGI\_EST\_match-ID]**](http://www.southgreen.fr/agrold/orygenesdb/%5bSBGI_EST_match-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/SBGI_TC111346>

SBGI (match\_part):

[http://www.southgreen.fr/agrold/orygenesdb/**[SBGI\_EST\_match-ID]\_match\_part\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bSBGI_EST_match-ID%5d_match_part_%5bnumber)]

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/SBGI_TC111346_match_part_1>

**SSR.gff3:**

SSR(match):

[http://www.southgreen.fr/agrold/orygenesdb/**[SSR\_match-ID]**](http://www.southgreen.fr/agrold/orygenesdb/%5bSSR_match-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/RM14292>

**OTL\_public.gff3 (Oryza\_TAG\_Line):**

OTL (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[OTL\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bOTL_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/ER888226>

OTL (plant name):

Note: The plant name it the OTL Line ID e.g.: plant\_name=AAAC07

[http://identifiers.org/otl/**[plant\_name-ID**](http://identifiers.org/otl/%5bplant_name-ID)**]**

e.g.: <http://identifiers.org/otl/AAAC07>

**CSIRO.gff3:**

CSIRO (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[CSIRO\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bCSIRO_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/DX108793>

**NIAS.gff3:**

NIAS (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[NIAS\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bNIAS_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/AG210562>

**TRIM.gff3:**

TRIM (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[TRIM\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bTRIM_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/KG085403>

**Ontology terms:**

Chromosome: obo:SO\_0000430

Gene: obo:SO\_0000704

mRNA: obo:SO\_0000234

Protein (polypeptide): obo:SO\_0000104

CDS: obo:SO\_0000316

Exon: obo:SO\_0000147

Match\_part: obo:SO\_0000039

EST\_match: obo:SO\_0000668

CDNA\_match: obo:SO\_0000689

Three prime UTR: obo:SO\_0000205

Five prime UTR: obo:SO\_0000204

Flanking region obo:SO\_0000239

miRNA\_primary\_transcript obo:SO\_0000647

miRNA obo:SO\_0000276

**Predicates to be used (check rdf model):**

**URI:** <http://www.southgreen.fr/agrold/vocabulary/>

is\_located\_on

develops\_from

derives\_from

part\_of

source\_project

has\_start\_position

has\_end\_position

**A.thaliana:**

The RDF model corresponds to OrygenesDB data for **A.thaliana** species (gff3 files).

The URI pattern, otology terms and predicates are as follows:

**Resource:**

Chromosome:

[http://www.southgreen.fr/agrold/orygenesdb.chromosome/**[ID**](http://www.southgreen.fr/agrold/orygenesdb.chromosome/%5bID)**]**

e.g.: [*http://www.southgreen.fr/agrold/orygenesdb.chromosome/At01*](http://www.southgreen.fr/agrold/orygenesdb.chromosome/At01)

**TAIR10.gff3:**

TAIR- gene (ensembl.plants):

[http://identifiers.org/ensembl.plant/**[ID**](http://identifiers.org/ensembl.plant/%5bID)**]**

e.g.: <http://identifiers.org/ensembl.plant/AT1G01010>

TAIR -mRNA:

[http://www.southgreen.fr/agrold/orygenesdb.mrna/[ID](http://www.southgreen.fr/agrold/orygenesdb.mrna/%5bID)]

e.g.: [http://www.southgreen.fr/agrold/orygenesdb.mrna/AT1G01010.1](http://www.southgreen.fr/agrold/orygenesdb.mrna/AT1G01010.1%20)

TAIR -CDS:

[http://www.southgreen.fr/agrold/orygenesdb/**[TAIR-mrna-ID]** **\_CDS \_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bTAIR-mrna-ID%5d%20_CDS%20_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1 \_CDS \_1](http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1%20_CDS%20_1)

[http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1 \_CDS \_2](http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1%20_CDS%20_2)

TAIR-exon:

[http://www.southgreen.fr/agrold/orygenesdb/**[TAIR -mrna-ID]\_exon\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bTAIR%20-mrna-ID%5d_exon_%5bnumber)**]**

e.g.: [http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1\_exon \_1](http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_exon%20_1)

[http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1\_exon \_2](http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_exon%20_2)

TAIR –three\_prime\_UTR:

[http://www.southgreen.fr/agrold/orygenesdb/**[TAIR -mrna-ID]\_three\_prime\_UTR\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bTAIR%20-mrna-ID%5d_three_prime_UTR_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_3_prime_UTR_1>

<http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_3_prime_UTR_2>

TAIR - five\_prime\_UTR:

[http://www.southgreen.fr/agrold/orygenesdb/**[TAIR -mrna-ID]\_five\_prime\_UTR\_[number**](http://www.southgreen.fr/agrold/orygenesdb/%5bTAIR%20-mrna-ID%5d_five_prime_UTR_%5bnumber)**]**

e.g.: <http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_5_prime_UTR_1>

<http://www.southgreen.fr/agrold/orygenesdb/AT1G01010.1_5_prime_UTR_2>

TAIR -protein:

[http://www.southgreen.fr/agrold/orygenesdb.protein/[ID](http://www.southgreen.fr/agrold/orygenesdb.protein/%5bID)]

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.protein/AT1G01010.1-Protein>

**CSH.gff3:**

CSH (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[CSH\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bCSH_flanking_region-ID%5d)

e.g.: [http://www.southgreen.fr/agrold/orygenesdb.flankingregion/CW845183](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/DX108793)

**GenoPlante.gff3:**

GenoPlante (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[Genoplante\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bGenoplante_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/AJ527014>

**SAIL.gff3:**

SAIL (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[SAIL\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bSAIL_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/CL509129>

**RIKEN.gff3:**

RIKEN (flanking region):

[http://www.southgreen.fr/agrold/orygenesdb.flankingregion/**[RIKEN\_flanking\_region-ID]**](http://www.southgreen.fr/agrold/orygenesdb.flankingregion/%5bRIKEN_flanking_region-ID%5d)

e.g.: <http://www.southgreen.fr/agrold/orygenesdb.flankingregion/13-0846-1_G-edge>

**Ontology terms:**

Chromosome: obo:SO\_0000430

Gene: obo:SO\_0000704

mRNA: obo:SO\_0000234

Protein (polypeptide): obo:SO\_0000104

CDS: obo:SO\_0000316

Exon: obo:SO\_0000147

Three prime UTR: obo:SO\_0000205

Five prime UTR: obo:SO\_0000204

Flanking region obo:SO\_0000239

**Predicates to be used (check rdf model):**

**URI:** <http://www.southgreen.fr/agrold/vocabulary/>

is\_located\_on

develops\_from

derives\_from

part\_of

source\_project

has\_start\_position

has\_end\_position