GPO FBrF0075203 1532

DROSOPHILA DATABASE REPORT FORM
Return to John Merriam, UCLA Biology, LA 90024-1606 FAX [redacted]

Please verify [ ] or correct the address and citation on the reverse.

NAME: Mary Beth Davis PHONE #: [redacted] FAX #: _____

1. GENE: How do you describe the gene you are reporting on?

mutant name (if any): αGPO

abbreviation: _____

biochemical name (if any): α glycerophosphate oxidase

2. LOCATION: Where is your clone/walk located? 52D3-5
(If you are using a clone from a more extended walk, what is the location of your gene? _____)

3. SIZE: How many kb did you clone? (round to nearest kb)

genomic 50 vector/library name: EMBL4, Cornell Lib; cos8-neo; cosPerwhite (Skellar), Tamp k. Lib

cDNA 2 vector/library name: λGT10 - L. Kauvar; pNB40 - N. Brown Lib.

4. METHOD: Describe the entry point for your clone/walk.

prior clone _____ transposon tag _____

expression _____ differential screen ✓ thoracic muscle cDNA library, then in situs to polytene

microclone _____ oligonucleotide _____ PCR? _____

homology _____

5. SEQUENCE: How many kb did you sequence? (round to nearest 0.1 kb)

genomic _____ accession #: _____

cDNA _____ accession #: _____

PRODUCT: How many amino acids in the ORF? _____

(List above the predicted function or homology group of the ORF)

(List above the key words that describe domains in the ORF)

6. TRANSCRIPTS: (round mRNA sizes to nearest 0.1 kb, list largest 1st):

1 - 2.2kb When/where found? throughout devel., highest late pupae.

7. PROTEIN (antibody detection): Where found? _____

8. LAC Z FUSION stain: Where found? _____

9. MORE DETAILS: Circumstantial evidence for transcriptional unit as being αGPO, yet this remains to be confirmed via germline transformation + rescue of flight in αGPO mutants.

MNV
5/26/92

2889

4/10/92

John Merriam
UCLA Drosophila Genmaps Database

complete your FAX number here:

Ross J; McKechnie S
Molecular Biology
Vanderbilt University
Nashville, TN 37235

FAX [redacted]

Dear Colleagues,

Great progress has been made toward a molecular description of the Drosophila genome. This can be seen from the wall chart of Drosophila chomosomes in the Oct 11 1991 issue of Science (review: Science 254, 221-225). A summary file showing the cytological locations of cloned DNA, rearrangement break points, and transposable element insertions (called clonelist.txt) has been posted on the file server FLY.BIO.INDIANA.EDU for electronic access using FTP.

Your article, listed below, is likely to have cloning or molecular information that should be listed in the Drosophila Genmaps. Please take a few minutes to complete this form and return to me by FAX or mail. If we missed any previous papers, make copies of this form to describe each earlier paper. Include your FAX number. If you think that one of your co-authors would be a better contact for us, feel free to send them this letter with your request to answer it.

I thank you for your help as always. With your prompt and generous support I can include your results in the next update, schelduled for June. -- John

CITATION:

Ross J; McKechnie S. Molecular characterization and organization of the glycerol-3-phosphate oxidase gene (Gpo) in D. melanogaster. 33rd Annual Drosophila Research Conference 1992.

--> List the Gene name:	and its Chromosome location:
Glycerol-3-phosphate oxidase	52D2-D5 — second chromosome

KEYs 1-8: Please check off those boxes which describe THIS PAPER

Describe your results in detail on the reverse side.

- [x] 1 Genomic or cDNA clones obtained.
- [ ] 2 Rearrangement breakpoints found in clone.
- [ ] 3 New location of transformed insert.
- [ ] 5 Sequence obtained.
- [ ] 6 Transcript obtained.
- [ ] 7 Protein described by antisera.
- [ ] 8 Promoter fusion studies.
- [ ] No cloning or molecular information about gene

DROSOPHILA GENMAPS DATABASE REPORT FORM

Return to John Merriam, UCLA Biology, Los Angeles CA 90026-1606; FAX [redacted]

location: 52D5-D5 keys for this paper: 5

Gene/mutant name: glycerol-3-phosphate oxidase

abbreviation: Gpo

biochemical name/product: glycerol-3-phosphate oxidase

(1) CLONES:

kb_genomic: λ13-9 vector/library name:

kb_cDNA: pT65, NB1 vector/library name:

METHOD:

prior clone: obtained from MacIntyre & Davis Cornell Univ walk:

expression: differential screen:

microclone: oligonucleotide: PCR?

homology: transposon tag:

(2) REARRANGEMENTS:

(3) TRANSFORM INSERTS:

(5) SEQUENCE:

kb_genomic: accession number:

kb_cDNA: accession number:

ORF-size:

ORF_function/homology group: homology to iron-sulphur center & transmembrane domains

ORF_domains:

(6) TRANSCRIPT DESCRIPTION:

transcript_size: ~2.6 Kb

distribution:

(7) PROTEIN ANTIBODY:

distribution:

(8) LAC Z FUSION STAIN:

distribution:

MISC_INFO: this sequence is in the process of being submitted to EMBL data base; also for publication to Nucleic Acids Res.

DROSOPHILA GENMAPS DATABASE RECORD PRINTOUT - 8/21/92
Return corrections to John Merriam, UCLA Biology,
Los Angeles, CA 90026-1606; FAX [redacted]

source_number 1532

full_location ~~52D3,5~~ 52D2-52D5 within this interval

table_numbers 1,6 cross_locations

gene_name glycerophosphate oxidase

gene_abbrev ~~GPO~~ Gpo

product alpha glycerophosphate oxidase

1 kb_cloned_genom 50 vector_genomic EMBL4/Cornell;cosPneo,cosPerwhite/Tamkun

kb_cloned_cDNA 2 vector_cDNA gt10 / Kauvar lib.; pNB40 / N. Brown lib

METHOD: expression xxx walk_jump_org YACs 0

microcloning oligonucleotide

homology transposon_tag

clonetechtext differential screen with thoracic muscle in a cDNA library, followed by in situs to polytenes.

2 rearrangement

3 T_strain

markers

5 kb_seq_genomic 5.3Kb 0 acc_number_gen M91658/EMBL kb_seq_old 0

kb_seq_cDNA 0 acc_number_cDNA

comments

ORF_size

ORF_function

ORF_domains

6 kb_trans_size 2.2

transc_dist throughout development, highest ~~late pupae~~. adults

7 protein_dist

8 fusion_dist

misc_info Circumstantial evidence for transcriptional unit as being alpha GPO, yet this remains to be confirmed via germline transformation and rescue of flight in alpha GPO mutants.

full citation MacIntyre RJ; Davis MB. A genetic and molecular analysis of the alpha glycerophosphate cycle in Drosophila melanogaster. Isozymes Curr Top Biol Med Res 1987;14:195-227.

contact_person ~~Davis, Mary Beth~~ MacIntyre, Ross ph [redacted] FAX

lab_address ROSS, Jennifer

address_line1

address_line2

address_line3

address_line4

keywords