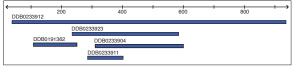
### Tools

# BLAST

#### http://dictybase.org/tools/blast

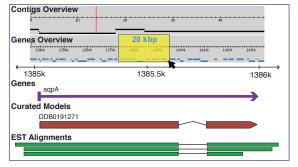
BLAST is accessible from the tabs. The BLAST interface allows analyzing sequence by entering a DDB or DDB\_G identifiers. BLAST results now include clickable graphic alignments.



### **Genome Browser**

#### http://dictybase.org/db/cgi-bin/ggb/gbrowse/

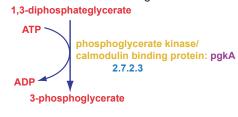
Search and view the genome with this dynamic, customizable map where annotations and sequences are displayed on multiple, clickable tracks. Mouse over an area in the 'Overview' region to zoom in or out.



# dictyCyc

#### http://dictybase.org/Dicty\_Info/dictycyc\_info.html

Explore Dictyostelium **metabolic pathways** with this dynamic display. Browse or search by gene, pathway name, compound, or E.C. number. Pathways are also linked from the Gene Page.



Community

### **Dicty Wiki**

#### http://wiki.dictybase.org

Play an active role in gene annotation by adding comments to the *Community Annotations Page* linked from every Gene Page.

# Dicty ListServ

#### http://dictybase.org/ListServ\_archive/

Receive the dictyNews with abstracts of papers in press and write to the ListServ to ask questions or contribute to discussions. Send your Email to dicty@listserv.it.northwestern.edu

To subscribe, visit: http://dictybase.org/db/cgi-bin/dictyBase/ colleague/colleagueSearch

## Dictyostelium Info

Find useful infomation about Dictyostelium on many helpful pages, such as:

- ► Learn about Dictyostelium
- ➤ Pictures/Videos
- > Dicty Annual Conference
- ➤ Techniques

# **Dicty Art**

#### http://dictybase.org/dictyArt/index.html

#### The Leaders

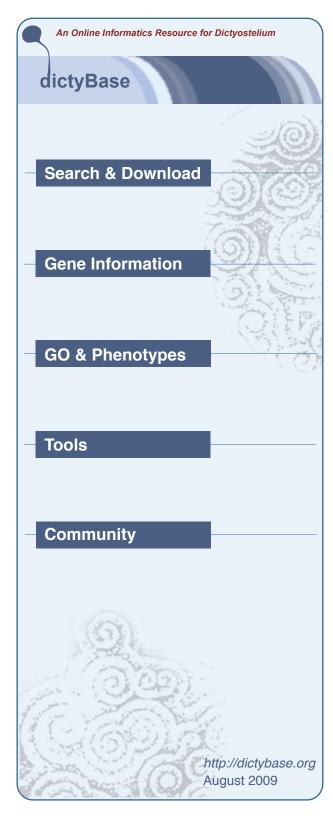
From the beginning of the journey, it is we who lead the way, we call the tune we beat the drum we send our chemical messages and you.... you must obey.

But at the journey's end, at the culmination of it all, we are the stalk and the stem who raise you up to the sky so that you might live while we...we must die. Paul Fisher



Contact us with any questions or comments at dictybase@northwestern.edu

Paul Dear



### Search & Download

### **General Search**

- Genes (names, synonyms)
- IDs (DDB, DDB G, UniProt...)
- Protein domains
- Gene Ontology terms
- dictyBase web pages
- Plasmids Colleagues

Strains

Authors

dicty::Mart

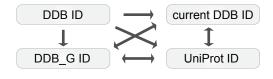
Phenotypes

#### Search All Gene Names Only

Speed up your search by using 'Gene Names Only' when restricting search to gene names and synonyms.

# **ID** Converter

#### http://dictybase.org/tools/convert



### **dictyMart**

#### http://dictybase.org/biomart/martview

Use dictyMart to retrieve:

- DNA and protein sequences
- gene flanking regions and exon positions
- genes with specific GO annotations
- · genes with ESTs

### **Downloads**

#### http://dictybase.org/Downloads/

- Gene Information
- Dictyostelium Sequences and Annotations
- Genes on AX3/AX4 Chr. 2 Duplication
- Mutant Phenotypes
- Phenotype Ontology
- Protein Domains
- ▶ GO Gene Association File
- Dictyostelium Phenotype and Anatomy Ontologies
- References

### **Gene Information**

### **Gene Summary**

#### http://dictybase.org/gene/piaA

The new Gene Page allows tabbed browsing. Individual sections can be collapsed and this setting is 'sticky' in your browser. Help is always just one click away.

Gene Summary 😨	Protein Information? Gene Ontology ? Phenotypes? References? BLAST?
General Inform	ation 🗧 🖬 🖸
Gene Name	piaA
Name Descriptio	n pia = <b>PIA</b> nissimo
Alternative Gene Names	DG1117, amiA, pia
Gene ID	DDB_G0277399

The Gene Product section informs about the gene model status, protein length and weight, and exon coordinates. Get a FastA file in a single click. For a guick BLAST search, preselect a sequence, hit 'Blast' and a new window opens with preset parameters. Using the default settings, click 'Blast' again and results appear in another window shortly after.

Gene Product Info				?	
Protein Coding Name	DDB0185055 V(Curator reviewed) Derived from gene prediction.	Genomic Coordinates		Local Co. 1 - 293	Chrom. Co. 8027 - 8029
Protein Length	1,148 aa		3		8031 - 8165 8198 - 8279
Protein Mol. Weight	129,527.5 Da				
More Protein Data	Protein sequence, domains and more				
Sequence	(Protein ) Get Fasta BLAST				

### **Protein Information**

#### http://dictybase.org/gene/corA/protein

The Protein tab contains all available protein information including annotations from UniProt (if available), domains, and sequence. Mouse over a domain to get more information and protein coordinates. Click on a domain and find links to the domain sources.

_	Protein Information?
Gene Summary ?	Protein Information Gene Ontology Phenotypes References BLAST
General Inform	nation 🗕 📥 ?
Gene Product	coronin actin binding protein
Protein Domaii	ns 🗖 🗖 ?
	[click on track to get information about a particular domain]
	← + + + + + → 100aa 200aa 300aa 400aa PANTHER <u>Coronin</u>
	PFAM DUF1899 PANTHER Coronin domain spanning DD80191115 from 21 - 399 00
	PROFILE WD40
	Table view

### GO, Phenotypes & Strains

# **Gene Ontology (GO)**

#### http://dictybase.org/gene/talA/go

Gene Ontology annotations are found under the Gene Ontology tab. Find genes annotated to a specific GO term by clicking on it. All GO terms are supported by an evidence and a reference.

Gene Summary? Protei	n Information ? Gene Ontology	Phenotypes ? R	eferences	BLAST
Molecular function				- * ?
GO term	Evidence Code	Reference		
actin binding	IEA (Inferred from Electronic Annotation) from InterPro: IPR002558	dictyBase		
Biological process				?
phagocytosis	IMP (Inferred from Mutant Phenotype)	dictyBase Pub	Med Fell Text	
Cellular component				?
filopodium tip	IDA(Inferred from Direct Assay)	dictyBase Pub	Med Fall Text	
filopodium tip	IDA(Inferred from Direct Assay)			

### **Phenotypes**

#### http://dictybase.org/gene/mhkA/phenotypes

The Phenotype tab lists all strains with their associated phenotype(s) and the associated references. In addition, all Stock Center availability is easily visible by a green icon. Click and link to your shopping cart.

Gene Summary? Protein Information? Gene Ontology ? Phenotypes? References? BLAST?				
Ä	Strain	Characteristics	Phenotype	Reference
) <b>!!!</b>	mhkA-	null mutant	increased myosin II assembly	
۳	mhkA-/mhkB	multiple null mutant	increased myosin II assembly	
			aberrant cytokinesis	
X	mhkA-/mhkC	multiple null mutant	decreased growth rate	

### **Stock Center**

#### Ţ http://dictybase.org/StockCenter/StockCenter.html

The Dicty Stock Center is now located at Northwestern University. The Stock Center collection currently contains about 1500 strains and 500 plasmids. Search strains in the general dictyBase search tool, and more efficiently, in the Stock Center search tool. Strains are also available from the Phenotype tab on each gene page. Order materials using an easy **shopping cart** system. Contact the Stock Center staff at dictystocks@northwestern.edu