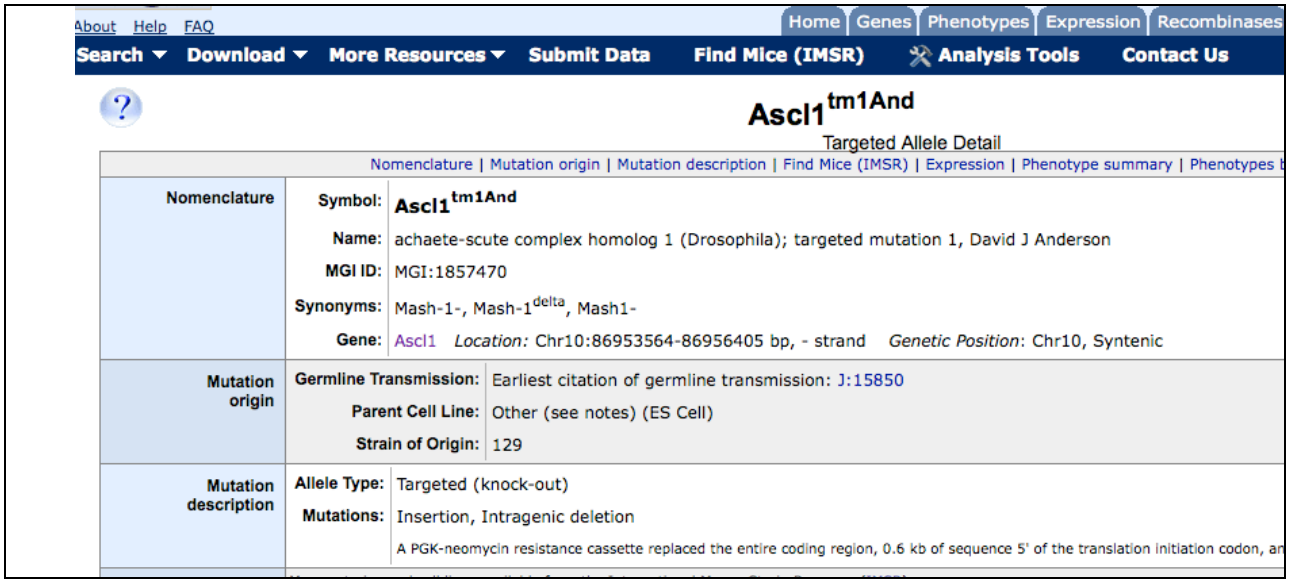
How do I find the MGI allele ID for the mutant allele I want to submit?

Mouse Genome Informatics (MGI) http://www.informatics.jax.org/ strives to provide a complete description of every mutant allele that has been published, including an ID number and official symbol that uniquely identify that allele.

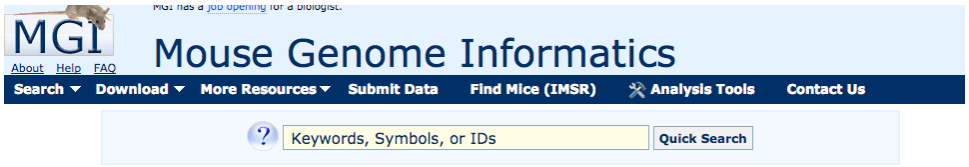
This description can be found on an MGI page called the **Allele Detail** page. It contains a wealth of information about the allele, including the ID number that you need to complete the submission of the allele to the UCSF mouse inventory database.

Allele Detail



There are two simple methods for finding the **Allele Detail page**, starting with **(1)** the name of the gene that is modified or **(2)** the Pubmed ID (PMID) of a paper in which the allele is described.

(1) Use the "Quick Search" feature on the MGI home page (illustrated below) and at the top right on every other MGI page:

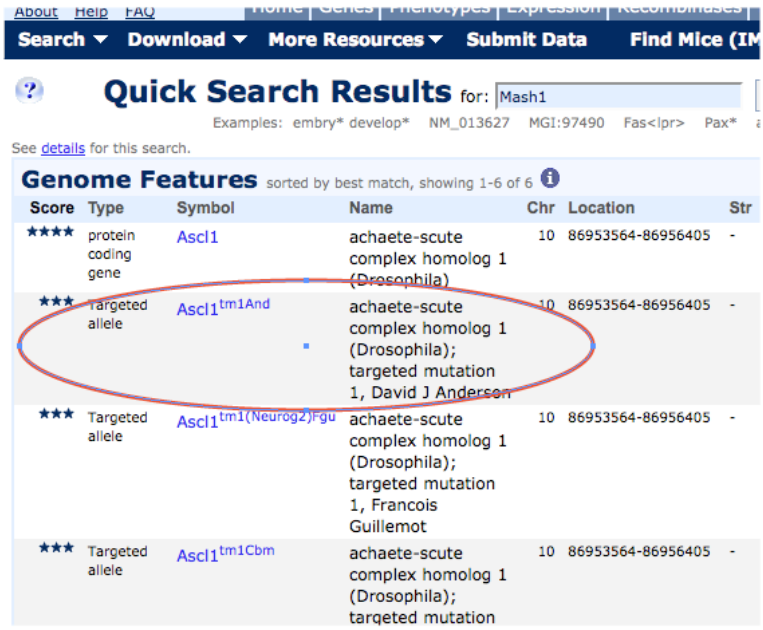


Enter the symbol for the gene that is modified (outdated symbols usually work).

Note: if there are a great many mutant alleles for a particular gene (e.g., "Rosa26"), you may want to find the MGI detail page using method #2 (see below), which starts with the PMID.

Scroll through the query results and find the one for the mutant allele you wish to submit to the Inventory.

Here, “Mash1” (an outdated symbol for Ascl1) was entered.



A summary of official symbols for the gene itself and all mutant alleles of it (as well as transgenes that include this gene) will come up. Scroll through and find the mutant allele you want to submit to the Inventory.

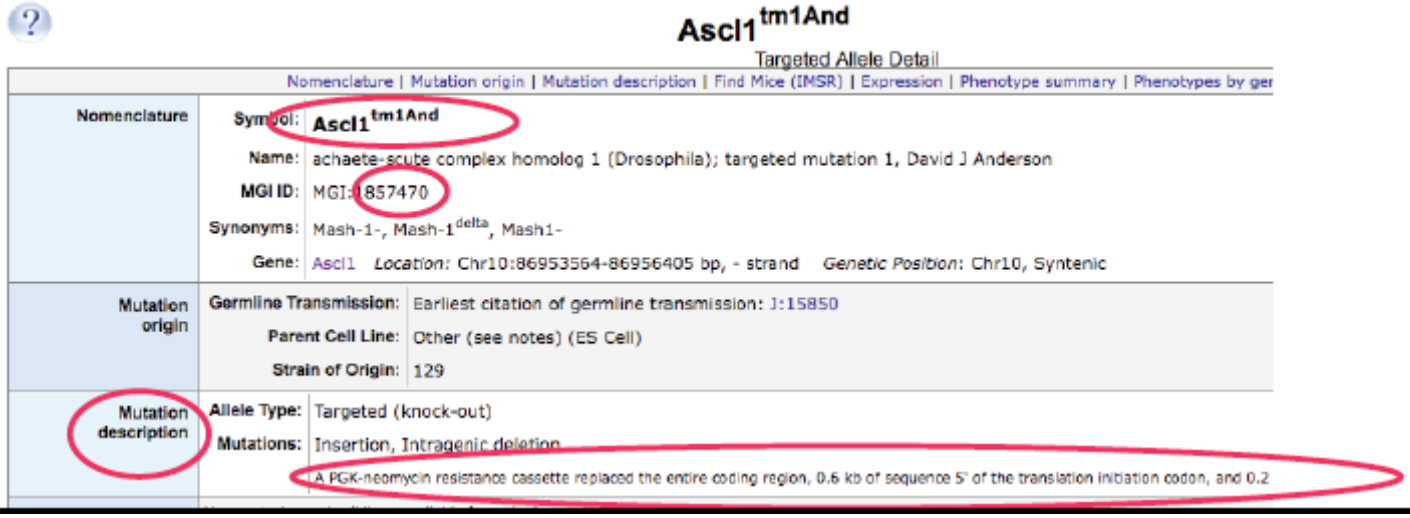
Finding the correct one usually requires knowledge of where the allele was made: the official symbol includes a lab code that usually represents the name of the person in whose lab it was produced.

Note that the letters “tm” in the superscript stand for “targeted mutation.”

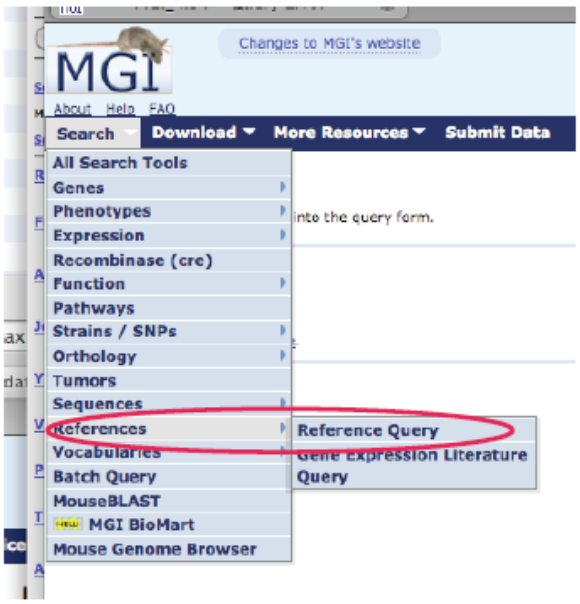
(In the example shown, the mutant allele was produced in David Anderson’s lab, and the lab code is And). There are exceptions to this. For example, "Unc" (University of North Carolina) is the lab code for mutant alleles generated by Oliver Smithies’ lab.

Click on the correct allele symbol, for a link to the **Allele Detail** page that describes it.
In making a choice, be especially careful if there are several mutant alleles from the same source.

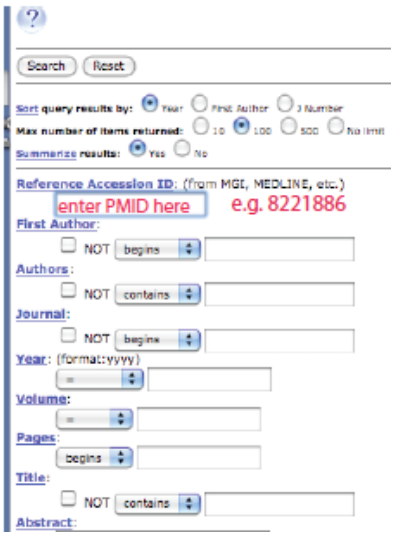
Make sure you have chosen the correct one by looking at the description of the allele on the detail page. Then, copy the MGI ID (number only) provided in the Nomeclature field at the top of the page to the database submission form.



(2) Go to "**References**," one of the choices under "search" on the left side of the MGI home page:



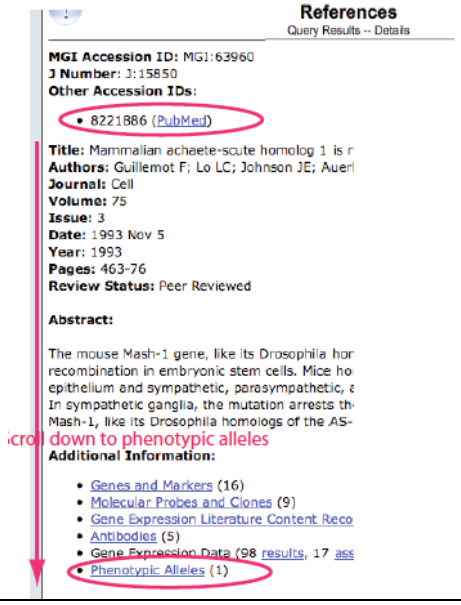
Click on "References Query" and then enter the Pubmed ID or other info that identifies the publication.



This will bring up a page with a link to the publication (if you start with a PMID there will be only one choice).

Click on that link, and you will get a page describing the paper, as well as a link – at the bottom of the page – to "Phenotypic alleles."

Click on the "phenotypic alleles" link, which will take you to a page listing all the mutant alleles and transgenes described in **that** paper.



Scroll through and find the one for the mutant allele you wish to submit to the Inventory.

Reference	J:15850 Guillemot F *et al.*, "Mammalian achae

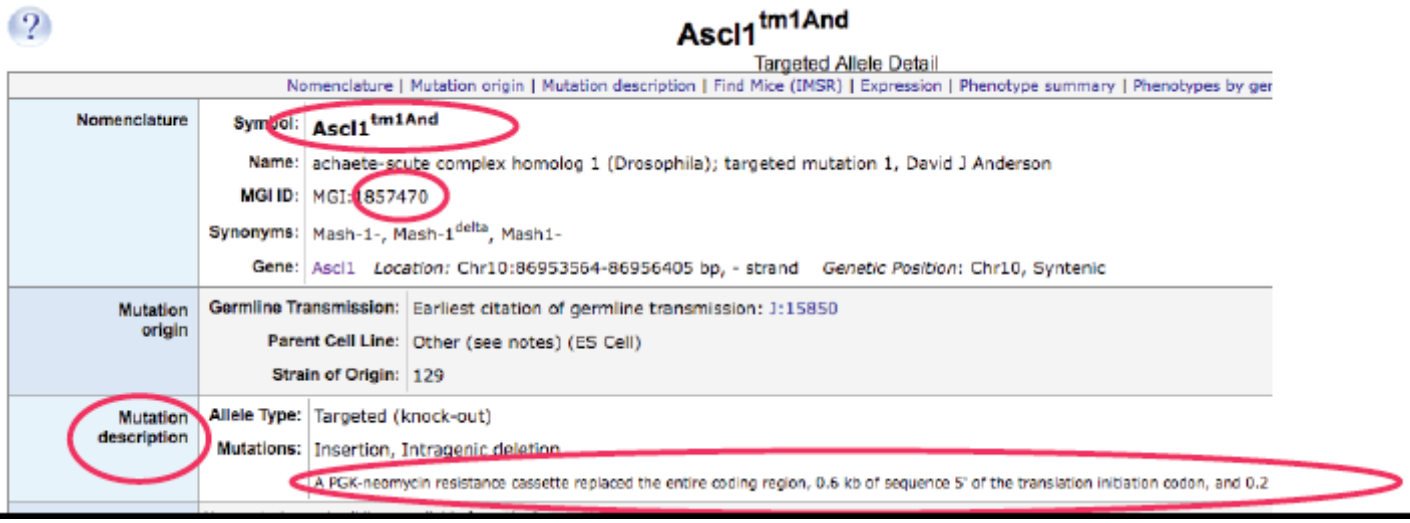
1 matching Allele (1 Gene/Marker represented)

Allele Symbol Gene; Allele Name	Chr	Synonyms
Ascl1^{tm1And} achaete-scute complex homolog 1 (Drosophila); targeted mutation 1, David J Anderson	10	Mash-1-, Mash-1^{delta}, Mash1-

As noted above, finding the correct mutant allele usually requires knowledge of where it was made: the official symbol includes a lab code (at the end of the symbol) that usually represents the name of the person in whose lab the allele was produced.

(The example shown is for a mutant allele produced in David Anderson's lab, for which the lab code is And).

Click on the correct allele symbol, for a link to the **MGI Allele Detail** page that describes the allele.



Ascl1^{tm1And}

Targeted Allele Detail

Nomenclature | Mutation origin | Mutation description | Find Mice (IMSR) | Expression | Phenotype summary | Phenotypes by ger

Nomenclature	Symbol:	Ascl1^{tm1And}
	Name:	achaete-scute complex homolog 1 (Drosophila); targeted mutation 1, David J Anderson
	MGI ID:	MGI:1857470
	Synonyms:	Mash-1-, Mash-1^{delta}, Mash1-
	Gene:	Ascl1 *Location:* Chr10:86953564-86956405 bp, - strand *Genetic Position:* Chr10, Syntenic
Mutation origin	Germline Transmission:	Earliest citation of germline transmission: J:15850
	Parent Cell Line:	Other (see notes) (ES Cell)
	Strain of Origin:	129
Mutation description	Allele Type:	Targeted (knock-out)
	Mutations:	Insertion, Intragenic deletion
		A PGK-neomycin resistance cassette replaced the entire coding region, 0.6 kb of sequence 5' of the translation initiation codon, and 0.2

Although MGI strives to have a detail page for every mutant allele that is published, they do not always have one.

If you cannot find a detail page for the mutant allele you have using either method, enter "none" in the field where the MGI allele ID is requested, then enter the MGI ID for the gene that is mutated in the allele you want to submit and the PMID for a publication in which the mutant allele is described.

Database admin will contact MGI and ask them to post a detail page. Your submission will be converted to a record after the detail page is posted