



## Product Specification Summary

### Guinea Pig First strand cDNA

Catalog Number	10-2102-05
Product Name	First Strand cDNA Guinea Pig Heart; 5 ug
Size	5 ug
Description	Guinea Pig Heart cDNA
Component/Note	Reconstitute before use
Component/Note	Supplied Lyophilized

#### Background

First strand cDNA is useful for amplifying a particular cDNA using PCR. The PCR reaction must be optimized using varying amounts of the cDNA. This optimization is particularly important when the target mRNA species is of low abundance. The protocol given is for amplifying beta-actin as a control to validate the quality of the 'first strand cDNA' supplied. The PCR conditions to amplify the target cDNA will be based on the primers selected. It should be noted that specific sequence primers as well as degenerate sequence primers can be used successfully to amplify the target sequence. The first strand cDNA has been prepared from freshly obtained Hartley strain guinea pig tissue and appropriately frozen during transportation. Oligo dT has been used to prime the synthesis of the first strand using Moloney Murine leukemia Virus (MMLV) Reverse Transcriptase. The amount supplied is sufficient for at least 50 amplifications. Each lot is tested for amplification of beta-actin cDNA.

#### Material Supplied

1. First strand cDNA 5 ug (lyophilized)
2. beta-actin control PCR mix 200 uL

#### Reconstitution

The 'First strand cDNA' is supplied lyophilized. Spin the tube briefly before opening to make sure that the DNA is collected at the bottom of the tube. Reconstitute it in 5uL sterile water.

The beta-actin control PCR mix supplied is ready to use with the supplied first strand cDNA.

#### Amplification of target sequence cDNA

Amplification of target sequence cDNA requires optimization using varying amounts of the first strand cDNA based on the abundance of the mRNA. Generally 1-5uL of the first strand cDNA is sufficient as the template. It is a good strategy to amplify short segments (200-300 bp) initially, and depending on the amplification results, longer segments could be attempted for amplification. Another proven method is to perform nested PCR using the amplification product of the first PCR.

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Product Information

<http://www.genelink.com/geneprodsite/product.asp?p=186>



Product Manual

[http://www.genelink.com/Literature/ps/PS10-21XX-05\\_Ver3.1.pdf](http://www.genelink.com/Literature/ps/PS10-21XX-05_Ver3.1.pdf)



Product MSDS

<http://www.genelink.com/Literature/ps/MSDSNH.pdf>



## Related Products

Product	Catalog No	Size
First strand cDNA Male Guinea pig adipose tissue; 5 ug	10-2112-05M	5 ug
First Strand cDNA Guinea Pig Eye; 5 ug	10-2111-05	5 ug
Omni-cDNA™ Guinea Pig Pooled First Strand cDNA; 5 ug	10-2100-05	5 ug
First Strand cDNA Guinea Pig Brain; 5 ug	10-2101-05	5 ug
First Strand cDNA Guinea Pig Heart; 5 ug	10-2102-05	5 ug
First Strand cDNA Guinea Pig Liver; 5 ug	10-2103-05	5 ug
First Strand cDNA Guinea Pig Kidney; 5 ug	10-2104-05	5 ug
First Strand cDNA Guinea Pig Intestine; 5 ug	10-2105-05	5 ug
First Strand cDNA Guinea Pig Skeletal Muscle; 5 ug	10-2106-05	5 ug
First Strand cDNA Guinea Pig Lung; 5 ug	10-2107-05	5 ug
First Strand cDNA Guinea Pig Spleen; 5 ug	10-2108-05	5 ug
First Strand cDNA Guinea Pig Ovary; 5 ug	10-2109-05	5 ug
First Strand cDNA Guinea Pig Pancreas; 5 ug	10-2110-05	5 ug