

MGC premier The best value for ready-to-express cDNA clones

Enabling Discovery Across the Genome

MGC *premier* cDNAs

Highest quality, comprehensive coverage, cost effective = Best Value



www.transomic.com

MGC premier cDNAs

cDNA clones are an integral tool for the study of gene function and protein analysis. Modulating gene expression has application across many fields of study from phenotypic analysis to proteomics. Using cDNA or ORF clones, over-expression can drive changes in phenotype allowing a better understanding of the biological role of the gene, while over-expression and purification is often the first step in the study of protein function through the production of antibodies or analysis of protein chemistry.

Defining cDNA and ORF clones

cDNA and ORF clones represent mRNA sequences. The type of clone varies depending on whether protein coding or non-protein coding sequences are included. Commercially available cDNA and ORF collections provide quick, easy access to clones representing genes across entire genomes. MGC premier full length cDNA collections from transOMIC technologies represent human, mouse, rat, bovine, Xenopus and zebrafish genomes. These collections are available as fully sequenced cDNA clones or as full length, sequence-verified cDNA clones with expression-ready vector options.

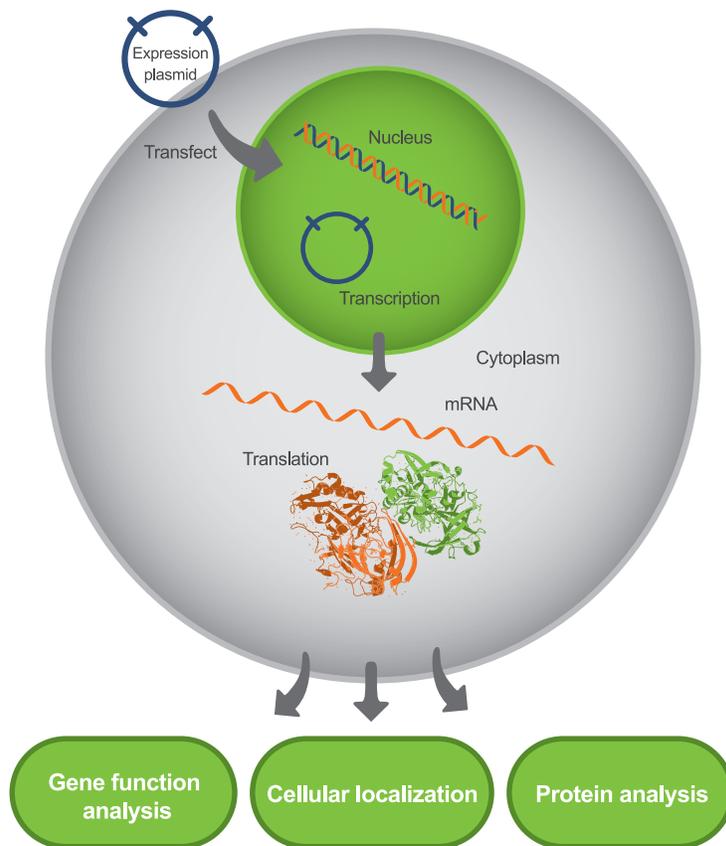
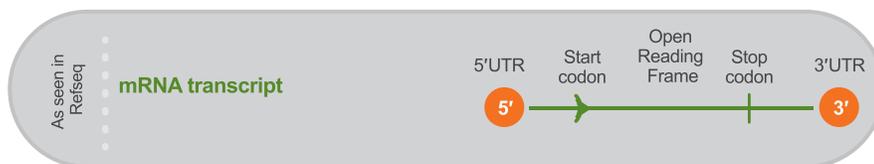


Figure 1. Gene over-expression is used for a variety of cell and protein biology applications

Reference consensus mRNA sequence



cDNA Clone Types

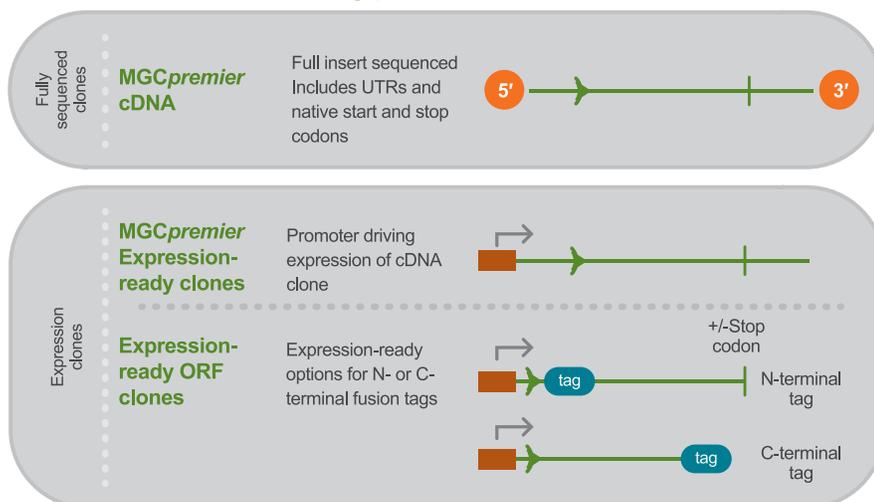
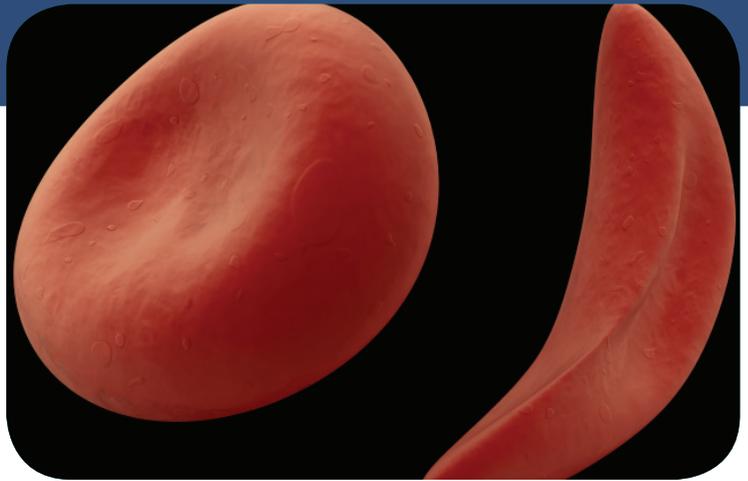


Figure 2: cDNA and ORF clone types related to reference consensus mRNA sequence



Highest quality

Full-insert sequencing is vital for any experiment using cDNA clones for gene analysis. Single nucleotide polymorphisms (SNPs) and larger splice variant changes in cloned sequences can be difficult to detect without full insert sequencing, but can significantly impact experimental results. MGC *premier* cDNA clones from transOMIC technologies provide the highest sequence quality for pre-made full length cDNA clones. All clones are 100% guaranteed to match their published sequence and to express when cloned into available expression vectors.

One of the first documented SNPs is the underlying mutation causing sickle cell anemia. A single nucleotide alters cellular phenotype as well as a patient's life span (Ingram 1957). If left unchecked a cDNA clone bearing this mutation would dramatically alter the outcome an experiment.



100% guarantee*
to be an exact match
to the published sequence

Comprehensive coverage

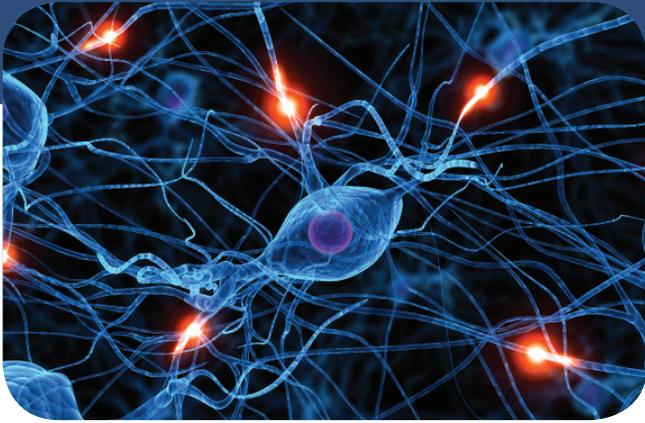
MGC *premier* collections have broad coverage for many model organisms. Complete genome collections are available for human, mouse, rat, bovine, zebrafish and Xenopus. Expression-ready cDNA options are also available for all available mammalian species.

Cost Effective

MGC *premier* full length cDNA clones are the best value available today for high quality, full length, sequence verified cDNA.

MGC *premier* cDNA clone and gene counts for all species

	Human	Mouse	Rat	Bovine	Zebrafish	Xenopus laevis	Xenopus tropicalis
MGC <i>premier</i> cDNA clones	29,818	27,285	6,763	9,104	16,739	11,515	9,080
Non-redundant genes	17,592	17,701	6,486	8,724	11,676	10,088	7,562
Expression-ready option	✓	✓	✓	✓			



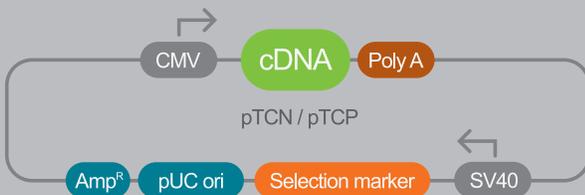
MGC premier cDNA for gene over-expression

Full length, sequence-verified cDNA clones

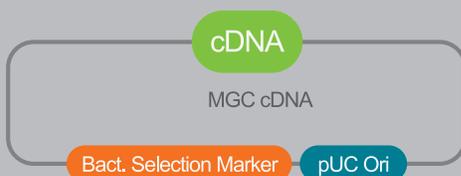
MGC *premier* cDNA clones provide the highest sequence quality and confidence when purchasing pre-made full length cDNA clones. Based on the Mammalian Gene Collection (MGC) developed by the National Institutes of Health (NIH) with rigorous sequence analysis resulting in less than 1 error in 50,000 bp (1), MGC *premier* expression-ready cDNA clones are further curated by re-sequencing to confirm the sequence integrity of purchased clones before shipping. All MGC *premier* cDNA clones are backed by a 100% guarantee* to be an exact match to the published sequence and to express the target protein.

- **Robust expression from the CMV promoter**
- **Choice of commonly used selection markers**
- **Guaranteed expression**

Expression-ready cDNA: Ready to express in mammalian cells



MGC premier cDNA clones: Transfer to custom expression vector



Vector element	
cDNA	Fully-sequenced cDNA clone insert
CMV	Mammalian promoter driving cDNA expression
Poly A	Polyadenylation site for transcript stability
Selection marker*	Mammalian selection marker
SV40	Promoter driving selection marker expression
pUC Ori	High copy origin of replication
Bacterial selection marker**	Betalactamase for antibiotic selection in ampicillin or carbenicillin

*Choice of Neomycin or Puromycin selection marker is available.

**Antibiotic resistance marker may vary. Review product details for propagation of plasmids.

MGC premier cDNA clones are also available as expression-ready vectors. cDNA clone vector as well as expression-ready vector cartoons are shown. pTCN vector has the neomycin selection marker. pTCP has the puromycin selection marker.



FETCH my gene™

Use the Fetch my Gene™ search tool to find cDNA clones representing your gene of interest. Fetch my Gene™ is designed to help you easily find clones for your gene of interest and confirm your results using the gene information provided.

1. Search

Input your search term into Fetch my gene™.

2. Choose product type

Quickly filter product type using tabs.

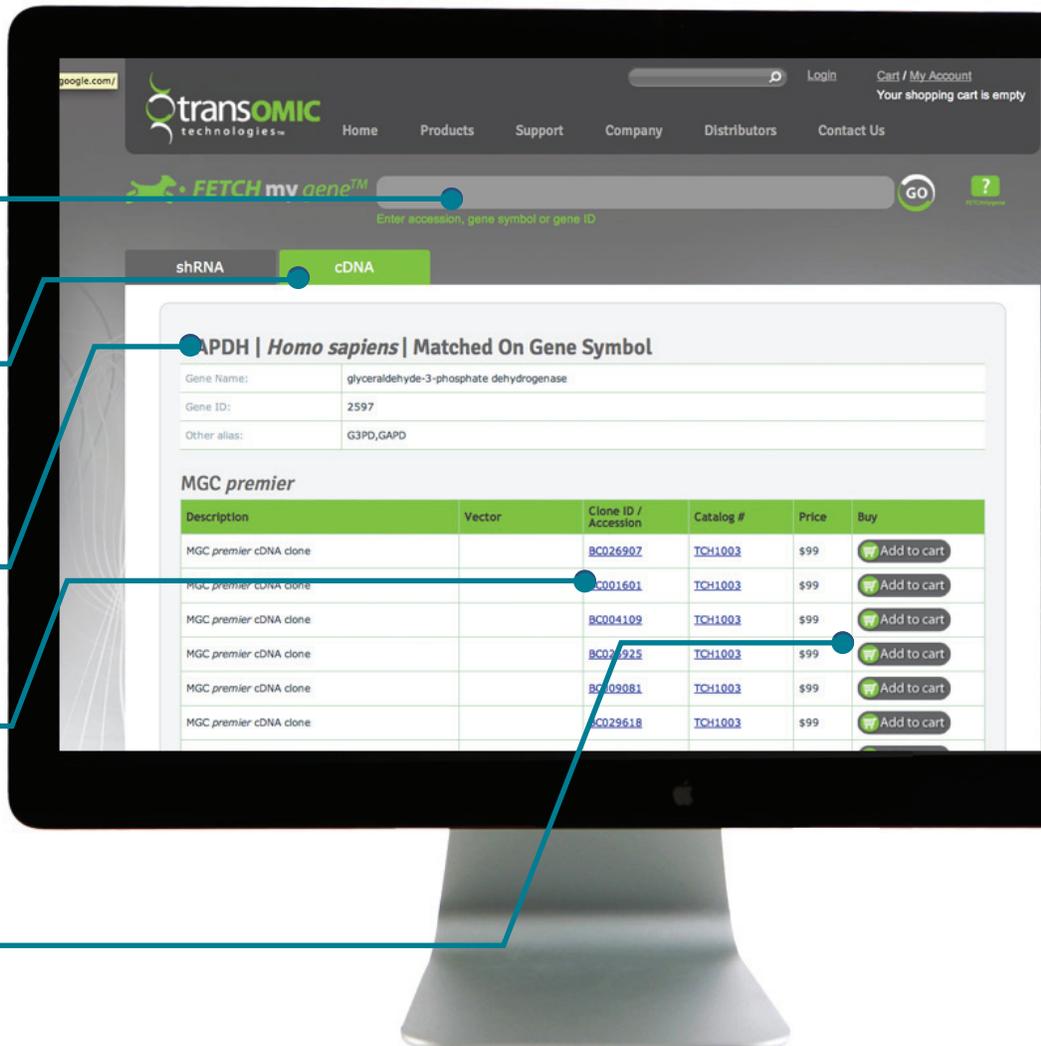
3. Confirm gene and product

Validate your gene of interest with additional gene information provided.

Clone specific information provided through link to clone details page.

4. Add to cart

Click add to cart to purchase or continue shopping.



See www.transomic.com for more details.

MGC premier cDNA clones are available as individual cDNA clones, expression ready cDNA clones, gene family and pathway sets and genome libraries
Get more information at www.transomic.com/MGCpremier



Headquarters

Hudson Alpha Institute for Biotechnology
601 Genome Way, Suite 1222
Huntsville, AL 35806
Phone: 866-833-0712
Fax: 256-327-9515
Email: support@transomic.com
www.transomic.com

Distributors

Asia Pacific

Australia

Integrated Sciences
Phone: 02 9417 7866
Toll-free: 1800 252 204
Fax: 02 9417 5066
E-mail: tech@integratedsci.com.au
www.integratedsci.com.au

India

SAF Labs Pvt. Ltd.
Phone: (0) 22 6712 2644
Fax: (0) 22 6712 2645
E-mail: info@saflabs.com
www.saflabs.com

Japan

Funakoshi
Phone: 81-3-5684-1620
Fax: 81-3-5684-1775
E-mail: reagent@funakoshi.co.jp
www.funakoshi.co.jp

Taiwan

GenDiscovery Biotechnology, Inc.
Phone: 886-2-8691-8491
Fax: 886-2-8691-8479
E-mail: gene@gendiscovery.com.tw
www.gendiscovery.com.tw

Europe

Germany, Austria and Switzerland

BioCat
Phone: +49 (0) 6221-7141516
Fax: +49 (0) 6221-7141529
E-Mail: info@biocat.com
www.biocat.com

Scandinavia and Benelux

Westburg BV
Phone: (+31) 33 494 6666
Belgium: 0800 - 19815
Fax: (+31) 33 495 1222
E-mail: info@westburg.eu
www.westburg.eu

United Kingdom

Cambridge Bioscience Ltd.
Phone +44 (0) 1223 316 855
Fax: +44 (0) 1954 781 323
E-mail: sales@bioscience.co.uk
www.bioscience.co.uk