

## Advantage® GC 2 Polymerase Mix

Catalog No.	Amount	Lot Number
639114	100 PCR reactions	Specified on product label.

### Description

A polymerase mix optimized for efficient, accurate, and convenient amplification of GC-rich templates. The Advantage GC 2 Polymerase Mix contains Titanium® *Taq* DNA Polymerase—a nuclease-deficient N-terminal deletion of *Taq* DNA polymerase plus TaqStart® Antibody to provide automatic hot start PCR—and a minor amount of a proofreading polymerase. Enough GC-Melt, enzyme mix, and buffer are supplied for 100 PCR amplifications of 50 µl each.

### Package Contents

- 100 µl 50X Advantage GC 2 Polymerase Mix
- 2 x 600 µl 5X GC 2 PCR Buffer
- 2 x 1 ml GC-Melt

### Storage Conditions

- Store at –20°C.
- At times, precipitate may be observed in the GC-Melt. This precipitate does not affect the performance of the kit. The precipitate can be dissolved rapidly by mixing at room temperature or warming at 37°C for a few minutes.

### Expiration Date

- Specified on product label.

### Shipping Conditions

- Dry ice

### Product Documents

Documents for our products are available for download at [takarabio.com/manuals](http://takarabio.com/manuals)

The following documents apply to this product:

- Advantage GC 2 PCR User Manual
- Advantage GC 2 PCR Protocol-At-A-Glance

### Quality Control Data

Purified N-terminal deletion mutant *Taq* polymerase was tested for enzymatic activity and PCR effectiveness. Endonuclease, exonuclease, and DNA contamination assays were also performed.

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## **Amplification of a GC-rich cDNA Fragment**

The Advantage GC 2 Polymerase Mix was tested by amplifying a 510-bp GC-rich fragment (of which 110 bp is 90% GC-rich) from the insulin-like growth factor receptor II (IGFR II) gene in the presence of varying concentrations of GC-Melt (0, 0.5, 1.0, 1.5, and 2 M). Reactions were assembled and performed as described in the User Manual. Cycle parameters were set at:

94°C	3 min
25 cycles:	
94°C	30 sec
68°C	1.5 min
68°C	3 min

5 µl of each PCR product was run on a 2.0 % agarose/EtBr gel. The presence of a major band of 0.5 kb was observed in the lanes corresponding to amplification with 0.5 M and 1.0 M GC-Melt.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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### CATALOG NO.

639114

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Our products are to be used for **Research Use Only**. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval.

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