

## Advantage® GC 2 Polymerase Mix

Catalog No.	Amount	Lot Number
639114 (Not sold separately)	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

- -20°C

**NOTE:** 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.

### Shelf Life

- 1 year from date of receipt under proper storage conditions.

### Shipping Conditions

- Dry ice (-70°C)

### 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 (PT3316-1)
- Advantage GC 2 PCR Protocol-At-A-Glance (PT3316-2)

### 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:

1 cycle	94°C, 3 min
25 cycles	94°C, 30 sec 68°C, 1.5 min
1 cycle	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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