



## Cloned AMV RT for **increased reliability**

**N**ow there's an AMV you can rely on, experiment after experiment. Invitrogen, the leader in RT technology and experts in gene expression, have cloned a fully active avian enzyme for your routine RT needs. Cloned AMV RT is a high-purity preparation that delivers more consistency and reliability than native enzyme preparations can. Use Cloned AMV RT and get great results from all your routine experiments.

### Cloned for **consistency**

Most AMV preparations are purified directly from the avian myeloblastosis virus. These native enzymes are subject to variability in unit activity and purity, resulting in inconsistent performance. Why compromise your results and repeat experiments? Invitrogen scientists have successfully cloned and over-expressed the complex two subunit structure of the avian enzyme in baculovirus-infected insect cells. This cloned AMV RT preparation

gives you the consistency you demand. You'll get:

- High purity with high specific activity for reliable and robust performance
- Thermostability to 50°C for success with difficult RNA
- High processivity for high yields of full-length cDNA
- Optimized buffer and protocols for double-stranded cDNA synthesis and RT-PCR

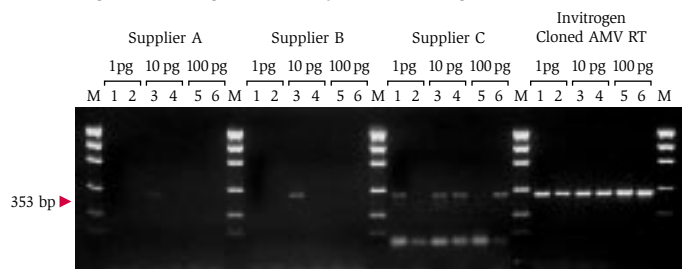


## Superior results

To demonstrate the capabilities of Invitrogen's Cloned AMV RT, we compared it to other AMV RT preparations. Cloned AMV RT is able to detect a 353 bp transcript present at 1 pg total RNA (Figure 1). To demonstrate versatility, we

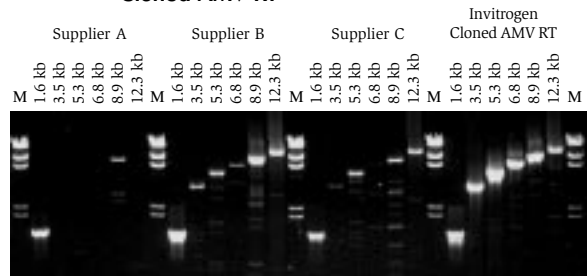
performed RT-PCR on five transcripts. As Figure 2 shows, Cloned AMV successfully produced high yields of all targets—even a 12.3 kb target. You can expect this superior performance in all of your AMV RT applications.

**Figure 1 – High sensitivity with Invitrogen Cloned AMV RT**



Amplified cDNA was synthesized in duplicate from 1 pg, 10 pg, and 100 pg of total HeLa RNA using reagents and conditions specified by vendor. Forty cycles of PCR contained primers for  $\beta$ -actin.

**Figure 2 – Range of RT-PCR product size with Invitrogen Cloned AMV RT**



Amplified cDNA was synthesized using reagents and conditions specified by vendor. Thirty-five cycles of PCR were performed for all reactions. All fragments were amplified from total HeLa RNA except dynein, which used rat brain total RNA. The targets and amounts of total RNA used for cDNA synthesis are as follows: cap binding protein, 1.6 kb, 10 ng (lane 1), DNA polymerase  $\epsilon$ , 3.5 kb and 6.8 kb, 100 ng (lanes 2 and 4), tuberous sclerosis, 5.3 kb, 100 ng (lane 3), adenomatous polyposis, 8.5 kb, 1  $\mu$ g (lane 5), and dynein, 12.3 kb, 2  $\mu$ g (lane 6). The mRNA target sizes are as indicated.

## Replace your AMV with Invitrogen Cloned AMV RT today

From RT-PCR to double-stranded cDNA synthesis, make your routine AMV RT experiments more reliable and consistent. Call Invitrogen, the leader in RT technology, and order Cloned AMV RT today.

Product	Quantity	Cat. no.
Cloned AMV RT	750 units	12328-019
	3,000 units	12328-027
Cloned AMV First-Strand Synthesis Kit*	25 rxns	12328-032
	100 rxns	12328-040

\*Each kit comes with Cloned AMV RT, 5X buffer, DTT, dNTP mix, RNaseOUT™, oligo(dT) primers, random hexamers, and DEPC-water.

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