

Technical Data Sheet

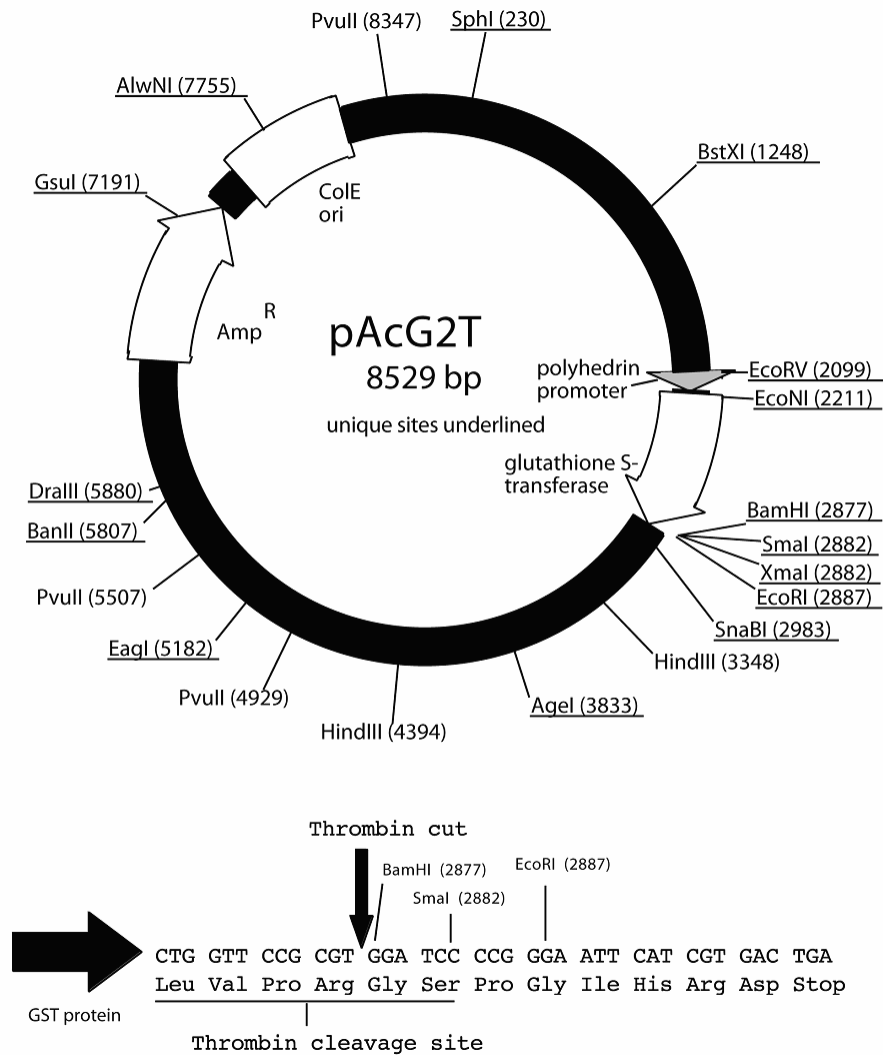
**pAcG2T Baculovirus Transfer Vector**

**Product Information**

**Material Number:** 554772  
**Size:** 20 µg in 20 µl

**Description**

The pAcG2T baculovirus transfer vector is a derivative of the pAcCL29 vector. Foreign genes may be expressed as glutathione S-transferase (GST) fusion proteins when cloned into one of the available restriction enzyme sites (BamH I, Sma I or EcoR I). All foreign inserts **must be in frame** with the GST open reading frame (ORF). The GST fusion protein expression is under the control of the strong AcNPV polyhedrin promoter. GST fusion proteins have a high affinity for reduced glutathione allowing single-step protein purification using glutathione beads. After purification, the GST affinity tag can be removed by incubating the fusion protein in the presence of thrombin. This vector is a polyhedrin locus-derived vector and is compatible with the BD BaculoGold™ transfection system (Cat. No. 554740).



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## Preparation and Storage

Store undiluted at -20°C.

The plasmid DNA was purified using an anion-exchange resin and dissolved in TE buffer (10 mM Tris-HCl, pH 7.5; 1 mM EDTA).

## Application Notes

### Application

Baculovirus	Routinely Tested
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### Recommended Assay Procedure:

For expression of a fusion protein under the polyhedrin promoter, insert the gene of interest into a suitable restriction site that is in frame with the GST ORF in the vector. Transform and amplify the plasmid DNA in *E. coli* strains (DH5 $\alpha$ , HB101 or any other suitable strain) under ampicillin selection and purify using standard protocols. For construction of recombinant virus, perform a co-transfection of the purified recombinant pAcG2T vector and linearized baculovirus DNA (BD BaculoGold™ viral DNA Cat. No. 554739) into a susceptible cell line (Sf9 or Sf21). The monoclonal antibody to GST (clone G172-1138, Cat. No.554805) can be used to detect recombinant GST-fusion proteins by Western blotting. For detailed protocols refer to the Baculovirus Expression Vector System Manual, 6th edition on our web site at <http://www.bdbiosciences.com/pdfs/manuals/98-6088-1F.pdf>.

### Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
554739	Linearized Baculovirus DNA	5 transfections	(none)
560129	Transfection Kit	5 transfections	(none)
560137	GST Purification Kit	1 box	(none)
554805	Purified Mouse Anti-Glutathione S-Transferase	0.1 mg	G172-1138

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

### References

- Davies AH, Jowett JB, Jones IM. Recombinant baculovirus vectors expressing glutathione-S-transferase fusion proteins. *Biotechnology*. 1993; 11(8):933-936. (Biology)
- Livingstone C, Jones I. Baculovirus expression vectors with single strand capability. *Nucleic Acids Res*. 1989; 17(6):2366.(Biology)