



Expression and Purification of Recombinant Rabbit and Human Phosphoglucomutase

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method for expressing and purifying phosphoglucomutase (PGM) using an *E. coli* system.

Overview

Phosphoglucomutase (PGM) is a glycolytic enzyme that converts glucose 1-phosphate to glucose 6-phosphate. This enzyme plays a major role in directing the flow of carbon toward either anabolic or catabolic pathways. Purified PGM is very unstable – it precipitates in an inactive form when frozen and retains activity when refrigerated for only a few days. As a result, PGM requires frequent re-isolation and is difficult to obtain in large quantities.

The Invention

UW-Madison researchers have now developed a method for expressing and purifying PGM using an *E. coli* system. Their technique produces high yields of recombinant PGM in a soluble, active form. A variety of materials are available for licensing, including whole cell pastes of recombinant *E. coli*, cell-free extracts and purified recombinant proteins.

Applications

- Production of PGM

Key Benefits

- Provides higher yields of soluble, active PGM enzyme than previous methods
- System has successfully produced both recombinant rabbit muscle and human PGM.

Additional Information

For More Information About the Inventors

- [John Markley](#)

Tech Fields

- [Research Tools : Other research tools](#)
- [Research Tools : Synthesis & purification](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854