



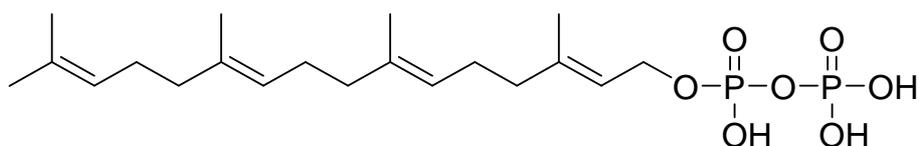
Echelon Biosciences Inc.
675 Arapeen Drive, Suite 302
Salt Lake City, UT 84108
Telephone 866-588-0455
Fax 801-588-0497
echelon@echelon-inc.com
www.echelon-inc.com

Technical Data Sheet

For research use only

Product Name: GERANYLGERANYL DIPHOSPHATE (GGPP)

Product Number: I-0200



Provided as	Chemical Formula	MW (g/mol)	Solubility	CAS Number
Tris-ammonium salt	C ₂₀ H ₄₅ N ₃ O ₇ P ₂	501.53	>1mg/ml H ₂ O or MeOH	104715-21-1

PACKAGING: Geranylgeranyl diphosphate (GGPP) is provided as the lyophilized tris-ammonium salt.

SPECIFICATIONS AND STORAGE RECOMMENDATIONS: Purity not less than 95% (by weight for solids and as percent of stated concentration for solutions) when shipped. Organic phosphates vary in stability and shelf life. For optimum shelf life, store at -20°C or below.

FIELD OF INTEREST: Isoprenoid diphosphates are key metabolic intermediates for biosynthesis of steroids, including cholesterol and hormones that regulate human reproduction or fertility, and posttranslational modifications of proteins in signal transduction pathways for cell division and regulation of vesicular trafficking.

Rohdich, F., Hecht, S., Gartner, K., Asam, P., Krieger, C., Amslinger, S., Arigoni, D., Bacher, A., & Eisenrich, W. Studies on the nonmevalonate terpene biosynthetic pathway; metabolic role of IspH (LytB) protein. *Proc. Natl. Acad. Sci. USA* **99**, 1158-63. (2002).
Burke, C. & Croteau, R. Interaction with the small subunit of geranyl diphosphate synthase modifies the chain length specificity of geranylgeranyl diphosphate synthase to produce geranyl diphosphate. *J Biol Chem.* **277**, 3141-9. (2002).

HAZARDOUS PROPERTIES AND CAUTIONS: No hazardous or toxic properties are known for this substance. Geranylgeranyl diphosphate is not listed as a hazardous waste or as a Toxic Chemical subject to release reporting under the Emergency Planning and Community Right-to-Know Act. For solutions containing methanol or other solvents, see MSDS for Organic Phosphates in Solution available on request.

Geranylgeranyl diphosphate is not listed on the Chemical Inventory of the Toxic Substance Control Act, and is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

WARRANTY AND DISCLAIMER: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchase is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.