

PRODUCT INFORMATION



PAMAM Dendrimer G1.0 Amine (water solution)

Item No. 39054

CAS Registry No.: 142986-44-5

Formal Name: N¹,N²⁴-bis(2-aminoethyl)-4,21-bis[3-[(2-aminoethyl)amino]-3-oxopropyl]-11,14-bis[3-[[2-[bis[3-[(2-aminoethyl)amino]-3-oxopropyl]amino]ethyl]amino]-3-oxopropyl]-8,17-dioxo-4,7,11,14,18,21-hexaazatetracosanediamide
Synonyms: PAMAM G1.0, Polyamidoamine Dendrimer G1.0

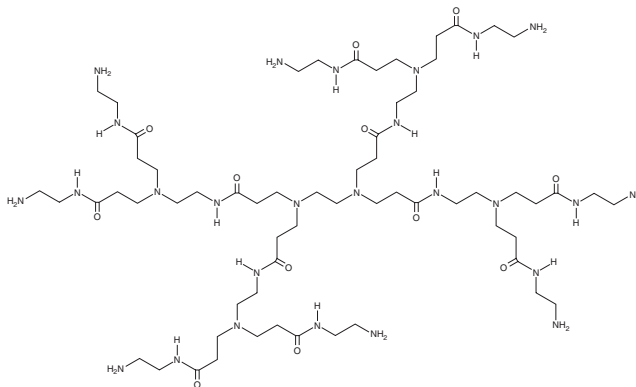
MF: C₆₂H₁₂₈N₂₆O₁₂

FW: 1,429.9

Supplied as: A solution in water

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

PAMAM dendrimer G1.0 amine (PAMAM G1.0) is a polyamidoamine (PAMAM) dendrimer with amine termini that has been used as a drug delivery system *in vitro*.¹ It is approximately 22 Å in diameter and has 8 surface groups.² Micelles composed of PAMAM G1.0 conjugated to di-n-dodecylamine and encapsulating 5-fluorouracil (5-FU; Item No. 14416) increase the solubility of 5-FU and are cytotoxic to AGS gastric adenocarcinoma cells.¹ PAMAM G1.0 conjugated to the clay mineral palygorskite (Pal-G1.0) on a PVDF membrane adsorbs the heavy metals nickel(II), cadmium(II), and copper(II) from aqueous solutions.²

References

1. Sarigul, E., Zaim, M., Senel, M., *et al.* Polyamidoamine dendron-bearing lipids as drug-delivery excipients. *Molecules* **27(22)**, 7817 (2022).
2. Heiden, T.C., Dengler, E., Kao, W.J., *et al.* Developmental toxicity of low generation PAMAM dendrimers in zebrafish. *Toxicol. Appl. Pharmacol.* **225(1)**, 70-79 (2007).
3. Zhang, X., Qin, Y., Zhang, G., *et al.* Preparation of PVDF/hyperbranched-nano-palygorskite composite membrane for efficient removal of heavy metal ions. *Polymers (Basel)* **11(1)**, 156 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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