

PRODUCT INFORMATION



PAMAM Dendrimer G1.5 Carboxylate (sodium salt) (water solution)

Item No. 39106

CAS Registry No.: 251970-28-2
Formal Name: 18,21-bis[3-[[2-[bis[3-[[2-[bis(2-carboxyethyl)amino]ethyl]amino]-3-oxopropyl]amino]ethyl]amino]-3-oxopropyl]-11,28-bis[3-[[2-[bis(2-carboxyethyl)amino]ethyl]amino]-3-oxopropyl]-4,35-bis(2-carboxyethyl)-8,15,24,31-tetraoxo-4,7,11,14,18,21,25,28,32,35-decaazaoctriacontanedioic acid, hexadecasodium salt

Synonyms: PAMAM G1.5 Carboxylate, Polyamidoamine Dendrimer G1.5 Carboxylate

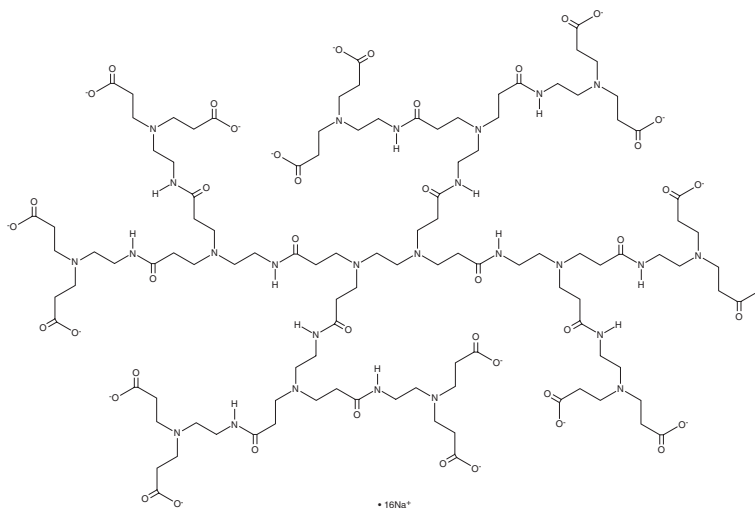
MF: C₁₁₀H₁₇₆N₂₆O₄₄ • 16Na
FW: 2,934.6

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 G1.5 carboxylate (PAMAM G1.5 carboxylate) is a polyamidoamine (PAMAM) dendrimer with carboxylate termini.¹ It is approximately 36.2 Å in diameter in water and has 12 surface groups.² PAMAM G1.5 carboxylate (10 μM) inhibits plaque formation induced by Middle East respiratory syndrome coronavirus (MERS-CoV) in Vero cells.¹ Conjugates of PAMAM G1.5 carboxylate with the active fragment of the DNA cross-linking agent oxaliplatin (Item No. 13106) are cytotoxic to A2780 ovarian, MCF-7 breast, and Caco-2 colon cancer cells and BJ fibroblasts (IC₅₀s = 0.04, 1.6, 0.3, and 1.3 μM, respectively).³

References

1. Kandeel, M., Al-Taher, A., Park, B.K., *et al.* A pilot study of the antiviral activity of anionic and cationic polyamidoamine dendrimers against the Middle East respiratory syndrome coronavirus. *J. Med. Virol.* **92**(9), 1665-1670 (2020).
2. Caminati, G., Turro, N.J., and Tomalia, D.A. Photophysical investigation of starburst dendrimers and their interactions with anionic and cationic surfactants. *J. Am. Chem. Soc.* **112**(23), 8515-8522 (1990).
3. Camacho, C., Tomás, H., and Rodrigues, J. Use of half-generation PAMAM dendrimers (G0.5-G3.5) with carboxylate end-groups to improve the DACHPtCl₂ and 5-FU efficacy as anticancer drugs. *Molecules* **26**(10), 2924 (2021).

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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