

PRODUCT INFORMATION



PAMAM Dendrimer G5.0 Succinamic Acid (water solution)

Item No. 39122

Synonyms: PAMAM G5.0 Succinamic Acid, Polyamidoamine Dendrimer G5.0 Succinamic Acid
FW: 41,626.0
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 G5.0 succinamic acid (PAMAM G5.0 succinamic acid) is a polyamidoamine (PAMAM) dendrimer with succinamic acid termini.¹ It is approximately 59 Å in diameter and has 128 surface groups.^{1,2} PAMAM G5.0 succinamic acid inhibits plaque formation induced by Middle East respiratory syndrome coronavirus (MERS-CoV) in Vero cells when used at a concentration of 10 µM.¹ It is active against *S. aureus*.³ PAMAM G5.0 succinamic acid encapsulating the anthracycline antitumor antibiotic doxorubicin (Item No. 15007) decreases cell viability in KB epithelial carcinoma cells.⁴ It does not induce mortality in zebrafish, unlike PAMAM dendrimer G6.0 amine (Item No. 39076) or PAMAM dendrimer G6.0 succinamic acid (Item No. 39123), when used at a concentration of 250 ppm in the tank water.⁵

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. Dobrovolskaia, M.A., Patri, A.K., Simak, J., *et al.* Nanoparticle size and surface charge determine effects of PAMAM dendrimers on human platelets *in vitro*. *Mol. Pharm.* **9**(3), 382-393 (2012).
3. Altaher, Y. and Kandeel, M. Structure-activity relationship of anionic and cationic polyamidoamine (PAMAM) dendrimers against *Staphylococcus aureus*. *J. Nanomater.* 4013016 (2022).
4. Zhang, M., Guo, R., Kéri, M., *et al.* Impact of dendrimer surface functional groups on the release of doxorubicin from dendrimer carriers. *J. Phys. Chem. B* **118**(6), 1696-1706 (2014).
5. Pryor, J.B., Harper, B.J., and Harper, S.L. Comparative toxicological assessment of PAMAM and thiophosphoryl dendrimers using embryonic zebrafish. *Int. J. Nanomedicine* **9**, 1947-1956 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/30/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM