PRODUCT INFORMATION

PAMAM Dendrimer G5.0 Amidoethanol (water solution)

Item No. 39114

Synonyms: PAMAM 5.0 Amidoethanol,
Polyamidoamine Dendrimer G5.0 Amidoethanol
MF: $[NH_2(CH_2)_2NH_2]$:(G=5);dendri PAMAM$(NHCH_2CH_2OH)_{128}$
FW: 28,950.9
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 G5.0 amidoethanol (PAMAM G3.0-amidoethanol) is a polyamidoamine (PAMAM) dendrimer with hydroxyl termini.[1] It is approximately 51 Å in diameter in PBS and has 128 surface groups. PAMAM G3.0-amidoethanol dendrimers encapsulating gold nanoparticles induce oxidation of carbon monoxide in a cell-free assay.[2] It binds to bilirubin (K_d = 8.5 µM).[3] PAMAM G5.0 aminoethanol is active against *S. aureus*.[4] It inhibits plaque formation induced by Middle East respiratory syndrome coronavirus (MERS-CoV) in Vero cells when used at a concentration of 10 µM.[5] PAMAM G3.0-amidoethanol has been used in the formation and isolation of platinum nanoclusters for *in vitro* breast cancer subtyping.[6]

References

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3. Shcharbin, D. and Bryszewska, M. Complex formation between endogenous toxin bilirubin and polyamidoamine dendrimers: A spectroscopic study. *Biochim. Biophys. Acta* **1760(7)**, 1021-1026 (2006).
4. Altaher, Y. and Kandeel, M. Structure-activity relationship of anionic and cationic polyamidoamine (PAMAM) dendrimers against Staphylococcus aureus. *J. Nanomater.* 4013016 (2022).
5. 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).
6. Tanaka, S.-i., Wadati, H.S., K., Yasuda, H., *et al.* Red-fluorescent Pt nanoclusters for detecting and imaging HER2 in breast cancer cells. *ACS Omega* **5(37)**, 23718-23723 (2020).

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