

# PRODUCT INFORMATION



## PAMAM Dendrimer G3.0 Succinamic Acid (water solution)

Item No. 39120

<b>Synonyms:</b>	PAMAM G3.0 Succinamic Acid, Polyamidoamine Dendrimer G3.0 Succinamic Acid
<b>FW:</b>	10,109.0
<b>Supplied as:</b>	A solution in water
<b>Storage:</b>	-20°C
<b>Stability:</b>	≥2 years

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

### Description

PAMAM dendrimer G3.0 succinamic acid (PAMAM G3.0 succinamic acid) is a polyamidoamine (PAMAM) dendrimer with succinamic acid termini that has been used as a drug delivery system *in vivo*.<sup>1</sup> It is approximately 35 Å in diameter in PBS and has 32 surface groups.<sup>2,3</sup> PAMAM G3.0 succinamic acid (10 µM) inhibits plaque formation induced by Middle East respiratory syndrome coronavirus (MERS-CoV) in infected Vero cells.<sup>3</sup> It is active against *S. aureus*.<sup>4</sup> Intravenous administration of PAMAM G3.0 succinamic acid conjugated to the tubulin polymerization inhibitor combretastatin A4 (combretastatin A4; Item No. 10007412) increases intratumoral necrosis and decreases intratumoral blood flow in an orthotopic U251 glioma rat xenograft model.<sup>1</sup>

### References

1. Gonawala, S., Aryal, M., Ewing, J.R., *et al.* MRI monitoring of cerebral blood flow after the delivery of nanocombretastatin across the blood brain tumor barrier. *J. Nanomed. Nanotechnol.* **9(5)**, 516 (2018).
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. 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).
4. Altaher, Y. and Kandeel, M. Structure-activity relationship of anionic and cationic polyamidoamine (PAMAM) dendrimers against *Staphylococcus aureus*. *J. Nanomater.* 4013016 (2022).

#### 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

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