# **PRODUCT** INFORMATION

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**17-DMAG** 

Item No. 11036

CAS Registry No.: Formal Name:	467214-20-6 17-demethoxy-17-[[2-(dimethylamino)ethyl] amino]-geldanamycin	
Synonyms:	Alvespimycin, KOS-1022, NSC 707545	нас Н
MF:	C <sub>32</sub> H <sub>48</sub> N <sub>4</sub> O <sub>8</sub>	
FW:	616.8	ОН
Purity:	≥98%	
UV/Vis.:	λ <sub>max</sub> : 220, 332, 529 nm	H <sub>3</sub> C
Supplied as:	A crystalline solid	O <sub>N</sub> _NH <sub>2</sub>
Storage:	-20°C	
Stability:	≥4 years	Ö
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis		

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## Laboratory Procedures

17-DMAG is supplied as a crystalline solid. A stock solution may be made by dissolving the 17-DMAG in the solvent of choice. 17-DMAG is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 17-DMAG in these solvents is approximately 2, 13, and 20 mg/ml, respectively.

17-DMAG is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 17-DMAGshould first be dissolved in DMF and then diluted with the aqueous buffer of choice. 17-DMAG has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Geldanamycin (Item No. 13355) is a potent inhibitor of Hsp90 that has poor water solubility. 17-DMAG is a water-soluble derivative of geldanamycin which potently inhibits Hsp90 (IC<sub>50</sub> = 24 nM) and has excellent bioavailability and tissue distribution in animals.<sup>1</sup> Like other Hsp90 inhibitors, 17-DMAG has diverse antitumor actions and has potential in treating certain types of cancer.<sup>2-6</sup> This compound also suppresses inflammation by interfering with signaling through the NF-κB pathway.<sup>7,8</sup> 17-DMAG also ameliorates high fat diet-induced renal failure in a mouse model of diabetes.<sup>9</sup>

## References

- 1. Egorin, M.J., Lagattuta, T.F., Hamburger, D.R., et al. Cancer Chemother. Pharmacol. 49(1), 7-19 (2002).
- 2. Bull, E.E.A., Dote, H., Brady, K.J., et al. Clin. Cancer Res. 10(23), 8077-8084 (2004).
- 3. Taldone, T., Sun, W., and Chiosis, G. Bioorg. Med. Chem. 17(6), 2225-2235 (2009).
- 4. Hackl, C., Lang, S.A., Moser, C., et al. BMC Cancer 10(668), 1-9 (2010).
- 5. Ramanathan, R.K., Egorin, M.J., Erlichman, C., et al. J. Clin. Oncol. 28(9), 1520-1526 (2010).
- 6. Kobayashi, N., Toyooka, S., Soh, J., et al. Lung Cancer 75(2), 161-166 (2012).
- 7. Madrigal-Matute, J., López-Franco, O., Blanco-Colio, L.M., et al. Cardiovasc. Res. 86(2), 330-337 (2010).
- 8. Shimp, S.K.I., Parson, C.D., Regna, N.L., et al. Inflamm. Res. 61(5), 521-533 (2012).
- 9. Zhang, H.-M., Dang, H., Kamat, A., et al. PLoS One 7(3), 1-9 (2012).

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

### SAFFTY 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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