

Product Data Sheet

Product Name: NG,NG-dimethyl-L-Arginine-d6 (hydrochloride)

Cat. No.: GC48837

Chemical Properties

Cas. No. 1313730-20-9

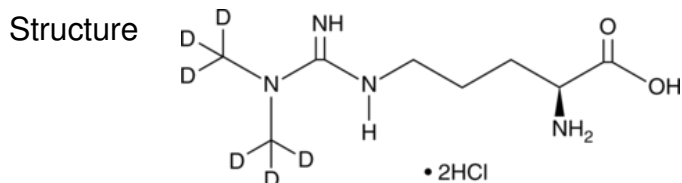
SMILES [2H]C([2H])([2H])N(C([2H])([2H])[2H])C(NCCC[C@H](N)C(O)=O)=N.Cl.Cl

Formula C₈H₁₂D₆N₄O₂•2HCl M.Wt 281.2

Solubility DMF: 5 mg/ml, DMSO: 3 mg/ml, Ethanol: 3 mg/ml, PBS (pH 7.2): freely soluble
Storage -20°C; protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.



Background

NG,NG-dimethyl-L-arginine-d₆ (ADMA-d₆) (hydrochloride) is intended for use as an internal standard for the quantification of NG,NG-dimethyl-L-arginine by GC- or LC-MS. ADMA is an endogenous inhibitor of nitric oxide synthase (NOS).^{1,2} It is formed from arginine by protein arginine methyltransferases (PRMTs) and degraded by dimethylarginine dimethylaminohydrolases (DDAHs) and alanine-glyoxylate aminotransferase 2 (AGXT2).¹ ADMA levels are increased concomitant with an increase in blood pressure in Dahl salt-sensitive rats fed a high-salt diet.² ADMA levels are increased in the plasma in a variety of endothelial dysfunction-related diseases, including hypertension, congestive heart failure, and end-stage renal disease.^{1,3,4}

1.Sydow, K., and Münzel, T. ADMA and oxidative stress. *Atheroscler. Suppl.* 4(4):41-51 (2003) 2.Jin,

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

J.S., and D'Alecy, L.G. Central and peripheral effects of asymmetric dimethylarginine, an endogenous nitric oxide synthetase inhibitor. *J. Cardiovasc. Pharmacol.* 28(3)439-446(1996) 3. Vallance, P., Leone, A., Calver, A., et al. Accumulation of an endogenous inhibitor of nitric oxide synthesis in chronic renal failure. *Lancet* 339(8793)572-575(1992) 4. Matsuoka, H., Itoh, S., Kimoto, M., et al. Asymmetrical dimethylarginine, an endogenous nitric oxide synthase inhibitor, in experimental hypertension. *Hypertension* 29(1 Pt 2)242-247(1997)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA