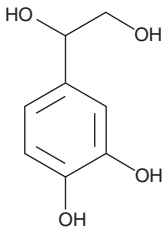
PRODUCT INFORMATION

DL-3,4-Dihydroxyphenyl glycol

Item No. 11708

CAS Registry No.:	28822-73-3
Formal Name:	4-(1,2-dihydroxyethyl)-1,2-benzenediol
Synonyms:	Ba 2775, DHPG, NSC 92532
MF:	$C_8H_{10}O_4$
FW:	1,706
Purity:	≥90%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

DL-3,4-Dihydroxyphenyl glycol is supplied as a solid. A stock solution may be made by dissolving the DL-3,4-dihydroxyphenyl glycol in the solvent of choice, which should be purged with an inert gas. DL-3,4-Dihydroxyphenyl glycol is soluble in DMSO.

Description

DL-3,4-Dihydroxyphenyl glycol is an active metabolite of the endogenous neurotransmitter norepinephrine (Item No. 35580).[1] It is produced by the deamination of norepinephrine by monoamine oxidase (MAO) in the cytosol.[2] DL-3,4-Dihydroxyphenyl glycol scavenges DPPH (Item No. 14805) radicals in a cell-free assay (IC_{50} = 1.55 µM).[3] It reduces LPS-induced nitrite production in isolated mouse peritoneal macrophages when used at concentrations of 50 and 100 µM. DL-3,4-Dihydroxyphenyl glycol (50 and 100 µM) decreases increases in inducible nitric oxide synthase (iNOS) and COX-2 levels induced by LPS in isolated mouse macrophages. It also inhibits LPS-induced degradation of IκBα in isolated mouse macrophages.

References

1. Jonason, J. and Rutledge, C.O. The effect of protriptyline on the metabolism of dopamine and noradrenaline in rabbit brain in vitro. *Acta Physiol. Scand.* **73(1)**, 161-175 (1968).
2. Padala, N.S.P., Ajjala, D.R., Boggavarapu, R.K., *et al.* LC-MS/MS method for quantification of 3,4-dihydroxyphenylglycol, a norepinephrine metabolite in plasma and brain regions. *Bioanalysis* **11(10)**, 971-986 (2019).
3. Aparicio-Soto, M., Sánchez-Fidalgo, S., González-Benjumea, A., *et al.* Naturally occurring hydroxytyrosol derivatives: Hydroxytyrosyl acetate and 3,4-dihydroxyphenylglycol modulate inflammatory response in murine peritoneal macrophages. Potential utility as new dietary supplements. *J. Agric. Food Chem.* **63(3)**, 836-846 (2015).

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