

Product Data Sheet

Product Name: Creatine riboside

Cat. No.: GC60727

Chemical Properties

Cas. No. 1616693-92-5

SMILES O=C(O)CN(C(N[C@H]1[C@@H]([C@@H]([C@@H](CO)O1)O)O)=N)C

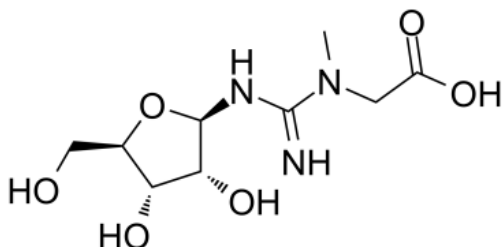
Formula $C_9H_{17}N_3O_6$ M.Wt 263.25

Solubility Storage Store at -20°C

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.

Structure



Background

Creatine riboside is a human metabolite formed by the natural, non-enzymatic conjugation of creatine and ribose, it has emerged as a potential biomarker for cancer diagnosis and prognosis^[1, 2]. High levels of Creatine riboside are generally associated with poorer cancer prognosis, such as aggressive tumor growth and reduced immune cell infiltration. Creatine riboside may reflect mitochondrial urea cycle dysfunction and metabolic abnormalities in cancer cells^[3]. Creatine riboside was first discovered in urine samples from non-small cell lung cancer (NSCLC) patients and a control

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

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group through untargeted metabolomic analysis^[4].

References:

- [1] Araújo H P F C. Purines, creatine, defective methylation and their biochemical and clinical relationship[M]. Universidade da Madeira (Portugal), 2003.
- [2] Patel D P, Pauly G T, Tada T, et al. Improved detection and precise relative quantification of the urinary cancer metabolite biomarkers—Creatine riboside, creatinine riboside, creatine and creatinine by UPLC-ESI-MS/MS: Application to the NCI-Maryland cohort population controls and lung cancer cases[J]. Journal of pharmaceutical and biomedical analysis, 2020, 191: 113596.
- [3] Parker A L, Toulabi L, Oike T, et al. Creatine riboside is a cancer cell–derived metabolite associated with arginine auxotrophy[J]. The Journal of Clinical Investigation, 2022, 132(14).
- [4] Oike T, Kanke Y, Parker A, et al. Abstract PR02: Diagnostic and prognostic utility of urinary creatine riboside for early stage non-small cell lung cancer[J]. Clinical Cancer Research, 2018, 24(17_Supplement): PR02-PR02.

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