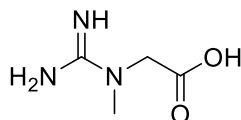


Creatine

Code No.: **BIA-C2637**

Pack sizes: **25 mg, 100 mg**



Synonyms : N-(aminoiminomethyl)-N-methylglycine, hydrate

Specifications

CAS #	: 57-00-1
Molecular Formula	: C₄H₉N₃O₂
Molecular Weight	: 131.1
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

Application Notes

Creatine is an endogenous amino acid produced by vertebrates and occurring primarily in muscle cells as phosphocreatine. Creatine is neuroprotective in vitro enhancing survival of glutamate-treated neuronal/glial cells, modulating Ras/NF-kappaB signaling, and increases the generation of reactive oxygen species. Creatine protects against anoxia in rodent models of cerebral ischemia. Creatine has immunomodulatory activity in vitro.

References

1. Creatine enhances survival of glutamate-treated neuronal/glial cells, modulates Ras/NF-kappaB signaling, and increases the generation of reactive oxygen species. Juravleva E. et al. J Neurosci Res. 2005, 79, 224.
2. Intracerebroventricular administration of creatine protects against damage by global cerebral ischemia in rat. Lensman M. et al. Brain Res. 2006, 1114, 187.
3. Neuroprotective mechanisms of creatine occur in the absence of mitochondrial creatine kinase. Kilvenyi P. et al. Neurobiol Dis. 2004, 15, 610.
4. Effect of creatine, creatinine and creatine ethyl ester of TLR expression in macrophages. Leland K.M. et al. Int Immunopharmacol. 2011, 11, 1341.