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TOCRIS

Print Date: Jun 9th 2023

Certificate of Analysis

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Product Name: **Taurine** **Catalog No.: 0209** **Batch No.: 12**

CAS Number: 107-35-7 EC Number: 203-483-8

IUPAC Name: 2-Aminoethylsulfonic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_2H_7NO_3S$

Batch Molecular Weight: 125.14

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	19.19	5.64	11.19
Found	19.3	5.62	11.19

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Catalog No.: 0209 **12**

CAS Number: 107-35-7
EC Number: 203-483-8

IUPAC Name: 2-Aminoethylsulfonic acid

Description:

One of the most abundant free amino acids in the brain. A partial agonist at the inhibitory glycine receptor. May be used in protocols for the generation of retinal pigment epithelial cells from hPSCs. Taurine-fed middle-aged mice have improved functioning of bone, muscle, pancreas, brain, fat, gut, and immune system, and a longer life span. It reduces cellular senescence, protected against telomerase deficiency, suppressed mitochondrial dysfunction, decreased DNA damage, and attenuated inflammation. Taurine supplementation increases health span and life span in worms and health span in non-human primates.

Physical and Chemical Properties:

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Storage: Store at RT

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Singh *et al* (2023) Taurine deficiency as a driver of aging. Science ***380*** eabn9257. PMID: 37289866.

Surendran *et al* (2022) An improved protocol for generation and characterization of human-induced pluripotent stem cell-derived retinal pigment epithelium cells STAR Protoc. ***3*** 101803. PMID: 36386870.

Boldyrev *et al* (1999) Carnosine and taurine protect rat cerebellar granular cells from free radical damage. Neurosci.Lett. ***263*** 169. PMID: 10213162.