
Product Data Sheet

Product Name: Gamma-glutamylcysteine (TFA)

Cat. No.: GC36106

Chemical Properties

Cas. No. 283159-88-6

SMILES SC[C@@H](C(O)=O)NC(CC[C@H](N)C(O)=O)=O.OC(C(F)(F)F)=OFormula C₁₀H₁₅F₃N₂O₇S

M.Wt 364.3

Solubility DMSO : 100 mg/mL (274.50 mM; Need ultrasonic); H₂O : 100 mg/mL (274.50 mM; Need ultrasonic)Store
Storage 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**

Gamma-glutamylcysteine (TFA) ((γ-glutamylcysteine (TFA)), an intermediate in glutathione (GSH) synthesis, is a dipeptide served as an essential cofactor for the antioxidant enzyme glutathione peroxidase (GPx). Gamma-glutamylcysteine (TFA) also upregulates the level of the anti-inflammatory cytokine IL-10 and reduces the levels of the pro-inflammatory cytokines (TNF-α, IL-6, and IL-1β) and attenuates the changes in metalloproteinase activity in oligomeric Aβ40-treated astrocytes[1]. IL-10 IL-6 IL-1β TNF-α

[1]. Braidy N, et al. The Precursor to Glutathione (GSH), γ-Glutamylcysteine (GGC), Can Ameliorate Oxidative Damage and Neuroinflammation Induced by Aβ40 Oligomers in Human Astrocytes. *Front Aging Neurosci.* 2019 Aug 8;11:177.

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

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