

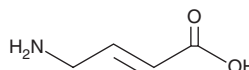
PRODUCT INFORMATION



TACA

Item No. 35217

CAS Registry No.: 38090-53-8
Formal Name: 4-amino-2E-butenic acid
Synonym: *trans*-4-Aminocrotonic Acid
MF: $C_4H_7NO_2$
FW: 101.1
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years
Special Conditions: Light and temperature sensitive



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

Laboratory Procedures

TACA is supplied as a solid. A stock solution may be made by dissolving the TACA in the solvent of choice, which should be purged with an inert gas. TACA is slightly soluble in methanol.

TACA is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

TACA is an agonist of the $\rho 1$ subunit-containing homomeric $GABA_A$ receptor, previously known as the $GABA_C$ receptor.^{1,2} It binds to homomeric $GABA_A$ receptors ($K_i = 0.36 \mu M$) and induces chloride currents in *X. laevis* oocytes expressing the human receptor ($EC_{50} = 0.53 \mu M$).¹ TACA (20 mg/kg) inhibits anxiolytic-like activity induced by the flavonoid quercetin (Item No. 10005169) in mice.³

References

1. Chang, Y., Covey, D.F., and Weiss, D.S. Correlation of the apparent affinities and efficacies of γ -aminobutyric acid_C receptor agonists. *Mol. Pharmacol.* **58**(6), 1375-1380 (2000).
2. Chebib, M., Vandenberg, R.J., and Johnston, G.A.R. Analogues of γ -aminobutyric acid (GABA) and *trans*-4-aminocrotonic acid (TACA) substituted in the 2 position as $GABA_C$ receptor antagonists. *Br. J. Pharmacol.* **122**(8), 1551-1560 (1997).
3. Jung, J.W. and Lee, S. Anxiolytic effects of quercetin: Involvement of GABAergic system. *J. Life Sci.* **24**(3), 290-296 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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