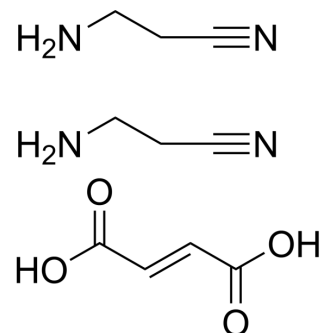


3-Aminopropionitrile fumarate (2:1)

| | |
|---------------------------|--|
| Cat. No.: | HY-107829 |
| CAS No.: | 2079-89-2 |
| Molecular Formula: | C ₄ H ₄ O ₄ ·2C ₃ H ₆ N ₂ |
| Molecular Weight: | 256.26 |
| Target: | MMP |
| Pathway: | Metabolic Enzyme/Protease |
| Storage: | 4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|---|----------------------|-------------|-------------|-------------|--------------|
| In Vitro | H ₂ O : 125 mg/mL (487.79 mM); Need ultrasonic | | | | | |
| | Preparing Stock Solutions | Solvent | Mass | 1 mg | 5 mg | 10 mg |
| | | Concentration | | | | |
| | | 1 mM | | 3.9023 mL | 19.5114 mL | 39.0229 mL |
| | | 5 mM | | 0.7805 mL | 3.9023 mL | 7.8046 mL |
| 10 mM | | 0.3902 mL | 1.9511 mL | 3.9023 mL | | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | | |
| In Vivo | 1. Add each solvent one by one: PBS Solubility: 100 mg/mL (390.23 mM); Clear solution; Need ultrasonic | | | | | |

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|--|
| Description | 3-Aminopropionitrile fumarate (2:1) is a lathyrogen which inhibits crosslinking of collagen. |
| IC₅₀ & Target | Collagen ^[1] . |
| In Vivo | Twenty days after the induction of tendinitis, intralesional treatment with 3-Aminopropionitrile fumarate (2:1) (BAPN-F) is performed and the contralateral limbs receive saline. A biopsy is obtained and gross and histopathological analysis is performed on the 150 th day of the experiment. The collagen fibrillar alignment pattern in the healing area is better in the 3-Aminopropionitrile fumarate (2:1) group submitted to controlled exercise than in the other group, as observed by sonographic and histopathologic examination. The present results indicate that 3-Aminopropionitrile fumarate (2:1) in combination with controlled loading improved scar remodeling and tendon wound collagen maturation ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

PROTOCOL

Animal Administration ^[1]

Horses^[1]

Seven female and nine male horses are assigned at random to two groups (G1 and G2) submitted to different treatments after the induction of acute tendinitis. Each group consists of eight animals injected with type 1 collagenase, 1 mL, 2.5 mg/mL, in the middle metacarpal third into the superficial digital flexor tendons of both forelimbs. Twenty days after the injection of collagenase, one of the limbs (G1A/G2A) receives an injection of 3-Aminopropionitrile fumarate (2:1), 3 mL, 0.8 mg/mL, and the other limb (G1B) receives the same volume of buffered saline as control. Group one was left in box rest, and group two was submitted to controlled exercise during the experiment^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. A.L.G. Alves, et al. Effects of beta-aminopropionitrile fumarate and exercise on equine tendon healing: gross and histological aspects. Journal of Equine Veterinary Science, 2001, 21 (7) :335-340.

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

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