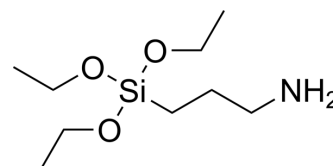


3-Aminopropyltriethoxysilane

Cat. No.:	HY-D0175
CAS No.:	919-30-2
Molecular Formula:	C ₉ H ₂₃ NO ₃ Si
Molecular Weight:	221.37
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (451.73 mM)
* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		4.5173 mL	22.5866 mL	45.1732 mL
	5 mM		0.9035 mL	4.5173 mL	9.0346 mL
	10 mM		0.4517 mL	2.2587 mL	4.5173 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

3-Aminopropyltriethoxysilane (APTES) acts as a strong glue to immobilize biomolecules such as antibodies and enzymes to silicon and silicon derivatives such as silicon nitride (Si₃N₄) on. 3-Aminopropyltriethoxysilane also acts as a spacer, providing biomolecules with more spatial freedom during immobilization for higher specific activity. 3-Aminopropyltriethoxysilane can form a more stable, sensitive, and highly biocompatible bioanalytical platform by immobilizing biomolecules onto some solid materials, electrode materials, nanomaterials, and nanocomposites^{[1][2]}.

In Vitro

3-Aminopropyltriethoxysilane is unstable in aqueous solution (hydrolytically unstable), and its ethoxy group is easily hydrolyzed into ethanol and trienol group^[2].
3-Aminopropyltriethoxysilane. At neutral pH, the half-lives of APTES are 56 h (10°C) and 8.4 h (24°C), respectively^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Saengdee P, et al. Optimization of 3-aminopropyltriethoxysilane functionalization on silicon nitride surface for biomolecule immobilization. Talanta. 2020;207:120305.

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

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