

Hydroxyethyl cellulose

Chemical Properties

CAS No. : 9004-62-0

Formula:

Molecular Weight:

Cellulose glycol

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Hydroxyethyl cellulose (2-Hydroxyethyl cellulose) is a nonionic water-soluble modified cellulose polymer used as a thickener in water-soluble cosmetics and personal care formulations.
Targets(IC50)	Others
In vitro	Hydroxyethyl cellulose demonstrates outstanding cryoprotective effects on lactate dehydrogenase (LDH) during freeze-thaw cycles and significant lyoprotective effects throughout the freeze-drying process. The annealing process minimally affects its stabilizing capabilities. However, the lengthy reconstitution times for hydroxyethyl cellulose lyophilisates are significantly reduced by adding the surfactant Tween 80 before freeze-drying. Furthermore, hydroxyethyl cellulose is utilized to stabilize graphene oxide in physiological solutions, enhancing its suitability for targeted drug delivery. It effectively stabilizes graphene oxide in electrolyte solutions, with the stabilization mechanism being influenced by the hydroxyethyl cellulose content. This content is crucial in tailoring the nanohybrid for specific applications, whether for controlled drug release or folate-targeted drug delivery.

Solubility Information

Solubility	H2O: 14.5 mg/mL, Sonication is recommended. DMSO: 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

Mianehrow H, et al. Graphene-oxide stabilization in electrolyte solutions using hydroxyethyl cellulose for drug delivery application. Int J Pharm. 2015 Apr 30;484(1-2):276-82.

Al-Hussein A, et al. Investigation of the stabilizing effects of hydroxyethyl cellulose on LDH during freeze drying and freeze thawing cycles. Pharm Dev Technol. 2015 Jan;20(1):50-9.

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