Proteins

Product Data Sheet

Hydroxyethyl cellulose

Cat. No.: HY-B2221B CAS No.: 9004-62-0

Target: **Biochemical Assay Reagents**

Others Pathway:

Powder -20°C Storage: 3 years

> 4°C 2 years

In solvent -80°C 6 months

> -20°C 1 month

Cellulose glycol

SOLVENT & SOLUBILITY

In Vitro H₂O: 9.09 mg/mL (warming and heat to 93°C) DMSO: < 1 mg/mL (insoluble or slightly soluble) In Vivo 1. Add each solvent one by one: PBS

Solubility: 50 mg/mL (Infinity mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description Hydroxyethyl cellulose is a non-ionic, modified cellulose polymer used as a thickening agent for aqueous cosmetic and personal care formulations.

In Vitro

Stabilization of graphene oxide in physiological solution is performed using hydroxyethyl cellulose to make the resultant nanohybrid suitable for targeted drug delivery purposes. Hydroxyethyl cellulose effectively stabilizes graphene oxid in electrolyte solutions and the mechanism of stabilization appears to be depended on hydroxyethyl cellulose content. Hydroxyethyl cellulose content in the nanohybrid plays an important role in final application to make it applicable either as a carrier for controllable drug release or as a folate-targeted drug carrier^[1]. Hydroxyethyl cellulose shows superior cryoprotective effects on LDH during freeze thawing, and considerable lyoprotective effects during the freeze drying process. Annealing has limited influence on the stabilizing effect of hydroxyethyl cellulose. The extensive reconstitution times of the hydroxyethyl cellulose lyophilisates could be greatly improved by incorporation of the surfactant Tween 80 into the formulations prior to freeze drying^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

• J Int Med Res. 2023 Oct;51(10):3000605231206289.

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REFERENCES [1]. 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. [2]. 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

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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