

Product Data Sheet

NES Protein, Human (P.pastoris, His)

Cat. No.:	HY-P71762
Synonyms:	ESTM 46; Intermediate filament protein; Nestin
Species:	Human
Source:	P. pastoris
Accession:	P48681 (P1321-L1569)
Gene ID:	10763
Molecular Weight:	Approximately 38 kDa

Inhibitors

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Screening Libraries

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Proteins

PROPERTIES			
FROPERTIES			
AA Sequence	PPPQGETGKEGWDPAVLASEGLEAPPSEKEEGEEGEECGRDSDLSEEFEDLGTEAPFLPGVPGEVAEPLGQVPQLLLDPAAWDRDGESDGFADEEESGEEGEEDQEEGREPGAGRWGPGSSVGSLQALSSSQRGEFLESDSVSVSVPWDDSLRGAVAGAPKTALETESQDSAEPSGSEEESDPVSLEREDKVPGPLEIPSGMEDAGPGADIIGVNGQGPNLEGKSQHVNGGVMNGLEQSEEVGQGMPL		
Appearance	Lyophilized powder		
Formulation	Lyophilized after extensive dialysis against solution in 20 mM Tris-HC1, 0.5 M NaCl, 6% Trehalose, pH 8.0.		
Endotoxin Level	<1 EU/µg, determined by LAL method.		
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.		
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.		
Shipping	Room temperature in continental US; may vary elsewhere.		

DESCRIPTION

Background

NES is essential for brain and eye development, playing a crucial role in promoting the disassembly of phosphorylated vimentin intermediate filaments (IF) during mitosis. This protein is implicated in the trafficking and distribution of IF proteins and other cellular factors to daughter cells during progenitor cell division, contributing to the survival, renewal, and mitogen-stimulated proliferation of neural progenitor cells. In vitro, NES forms homodimers and homotetramers, with a propensity to preferentially form heterodimers with other intermediate filament proteins such as vimentin and alpha-internexin. Notably, the assembly of these heterodimers into intermediate filaments occurs if nestin levels do not exceed

25%. Additionally, NES interacts with FHOD3, further highlighting its involvement in intricate cellular processes (By similarity).

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

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA