

eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) (387-394) [Multiple species]

## Chemical Properties

CAS No.:	T22774
Formula:	C43H67N9O13
Molecular Weight:	918.04
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) encodes an isoform of the alpha subunit of the elongation factor-1 complex, which is responsible for the enzymatic delivery of aminoacyl tRNAs to the ribosome. This isoform (alpha 1) is expressed in the brain, placenta, lung, liver, kidney, and pancreas, and the other isoform (alpha 2) is expressed in the brain, heart, and skeletal muscle. This isoform is identified as an autoantigen in 66% of patients with Fely syndrome. This gene has been found to have multiple copies on many chromosomes, some of which, if not all, represent different pseudogenes <sup>1</sup> .
In vitro	There are two forms of eEF1A in eukaryotes, eEF1A1 and eEF1A2, both of which possess the same role in protein synthesis <sup>2</sup> . eEF1A2 was reported to be exclusively expressed in the brain, heart, and skeletal muscle, whereas eEF1A1 is well known to be ubiquitously expressed <sup>3</sup> . Tetraploid cells produced by impaired chromosomal condensation are eliminated by a novel type of cell death different from caspase-dependent apoptosis. Cell death was associated with the downregulation of eukaryotic translation elongation factor-1 a 1 (eEF1A1/EF-1a) expression in conjunction with the accumulation of its mRNA in processing bodies (P bodies). Importantly, expression of exogenous eEF1A1 was shown to inhibit the caspase-independent cell death, and similar cell death was observed after inducing the expression of short hairpin RNA specific for eEF1A1 <sup>2</sup> .

## Solubility Information

Solubility	DMSO: ≥91.8mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.089 mL	5.446 mL	10.893 mL
5 mM	0.218 mL	1.089 mL	2.179 mL
10 mM	0.109 mL	0.545 mL	1.089 mL
50 mM	0.022 mL	0.109 mL	0.218 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

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