Doublecortin/DCX Protein, Human (His)

Cat. No.:	HY-P75282
Synonyms:	Neuronal migration protein doublecortin; Doublin; Lis-X; DCX
Species:	Human
Source:	E. coli
Accession:	O43602-2 (A45-V150)
Gene ID:	1641
Molecular Weight:	Approximately 13 kDa

PROPERTIES

AA Sequence	A L S N E K K A K K V R F Y R N G D R Y F K G I V Y A V S S D R F R S F D A L L A D L T R S L S D N I N L P Q G V R Y I Y T I D G S R K I G S M D E L E E G E S Y V C S S D N F F K K V E Y T K N V N P N W S V N V
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	The Doublecortin/DCX Protein plays a pivotal role as a microtubule-associated protein in the early stages of neuronal dispersion and cortex lamination during cerebral cortex development. Its function may involve competing with the putative neuronal protein kinase DCLK1 for binding to a target protein, thereby participating in a crucial signaling pathway essential for neuronal interaction before and during migration. This process is likely part of a calcium ion-dependent signal transduction pathway. Doublecortin/DCX may also collaborate with PAFAH1B1/LIS-1, contributing to overlapping yet distinct signaling pathways that collectively promote efficient neuronal migration. In this intricate cellular orchestration, Doublecortin/DCX interacts with tubulin and USP9X, emphasizing its involvement in the regulation of microtubule dynamics and highlighting its significance in the complex molecular pathways governing neuronal development.

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

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