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Product Data Sheet

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HAS2 Protein, Mouse (His)

Cat. No.:	HY-P72222
Synonyms:	Has2; Hyaluronan synthase 2; EC 2.4.1.212; Hyaluronate synthase 2; Hyaluronic acid synthase 2; HA synthase 2
Species:	Mouse
Source:	E. coli
Accession:	P70312 (E67-L374)
Gene ID:	15117
Molecular Weight:	Approximately 39.9 kDa

PROPERTIES	
AA Sequence	EHRKMKKSLETPIKLNKTVALCIAAYQEDPDYLRKCLQSVKRLTYPGIKVVMVIDGNSDDDLYMMDIFSEVMGRDKSATYIWKNNFHEKGPGETEESHKESSQHVTQLVLSNKSICIMQKWGGKREVMYTAFRALGRSVDYVQVCDSDTMLDPASSVEMVKVLEEDPMVGGVGGDVQILNKYDSWISFLSSVRYWMAFNIERACQSYFGCVQCISGPLGMYRNSLLHEFVEDWYNQEFMGNQCSFGDDRHLTNRVLSLGYATKYTARSKCLTETPIEYLRWLNQQTRWSKSYFREWLYNAMWFHKHHL
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm solution of 10 mM Tris-HCl, 1 mM EDTA, 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

HAS2 protein plays a pivotal role in hyaluronan synthesis by catalyzing the addition of GlcNAc or GlcUA monosaccharides to the nascent hyaluronan polymer. As a key isozyme involved in this process, HAS2 contributes significantly to the formation of high molecular mass hyaluronan, a major component of most extracellular matrices. This hyaluronan polymer, with its structural role in tissue architectures, plays a crucial role in regulating cell adhesion, migration, and differentiation. HAS2's importance extends to developmental processes, as it is required for the transition of endocardial cushion cells into mesenchymal cells, a critical step in heart development. Additionally, HAS2 may play a role in vasculogenesis. The synthesis of high molecular mass hyaluronan by HAS2 is particularly noteworthy in early contact inhibition, a cellular process that halts growth upon cell contact with other cells or the extracellular matrix. In summary, HAS2 emerges as a central player in the intricate orchestration of hyaluronan-mediated cellular and developmental functions.

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

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