ECM1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75265
Synonyms:	Extracellular matrix protein 1; Secretory component p85; Ecm1
Species:	Mouse
Source:	HEK293
Accession:	Q61508-1 (A20-E559)
Gene ID:	13601
Molecular Weight:	Approximately 80-95 kDa due to the glycosylation.

PROPERTIES

AA Sequence	A S E G A F K A S D Q R E M T P E R L F Q H L H E V G Y A A P P S P P Q T R R L R V D H S V T S L H D P P L F E E Q R E V Q P P S S P E D I P V Y E E D W P T F L N P N V D K A G P A V P Q E A I P L Q K E Q P P P Q V H I E Q K E I D P P A Q P Q E E I V Q K E V K P H T L A G Q L P P E P R T W N P A R H C Q Q G R R G V W G H R L D G F P P G R P S P D N L K Q I C L P E R Q H V I Y G P W N L P Q T G Y S H L S R Q G E T L N V L E T G Y S R C C R C R S D T N R L D C L K L V W E D A M T Q F C E A E F S V K T R P H L C C R L R G E E R F S C F Q K E A P R P D Y L L R P C P V H Q N G M S S G P Q L P F P P G L P T P D N V K N I C L L R R F R A V P R N L P A T D A I Q R Q L Q A L T R L E T E F Q R C C R Q G H N H T C T W K A W E G T L D G Y C E R E L A I K T H P H S C C H Y P P S P A R D E C F A H L A P Y P N Y D R D I L T L D L S R V T P N L M G Q L C G S G R V L S K H K Q I P G L I Q N M T I R C C E L P Y P E Q A C C G E E E K L A F I E N L C G P R R N S W K D P A L C C D L S P E D K Q I N C F N T N Y L R N V A L V A G D T G N A T G L G E Q G P T R G T D A N P A P G S K E E
Biological Activity	1.Measured by the ability of the immobilized protein to support the adhesion of HFF Human skin fibroblast cells. When 5 × 10^4 cells/well are added to mECM1-His coated plates (2.5 μg/mL and 100 μL/well), approximately > 30% will adhere specifically after 90 minutes at 37°C. 2.Measured by the ability of the immobilized protein to support the adhesion of the B16F1 mouse melanoma cells. The adhesion rate for this effect is 69.70% in the presence of 10 μg/mL rmECM-1.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 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	ECM1, a multifaceted protein, serves as a crucial participant in endochondral bone formation, acting as a negative regulator of bone mineralization. Beyond its role in bone development, ECM1 demonstrates its influence on vascular processes by stimulating endothelial cell proliferation and promoting angiogenesis. Furthermore, the protein exhibits inhibitory effects on MMP9 proteolytic activity, revealing its regulatory function in extracellular matrix remodeling. ECM1 engages in various molecular interactions, including binding to HSPG2 via its C-terminus and forming complexes with EFEMP1/FBLN3 and LAMB3. Additionally, ECM1 interacts directly with MMP9, emphasizing its involvement in the modulation of matrix metalloproteinase activity. The diverse roles and interactions of ECM1 underscore its significance in orchestrating processes related to bone formation and vascular function.

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