MINPP1 Protein, Human (P.pastoris, His)

Cat. No.:	HY-P71854
Synonyms:	MINPP2; MIPP; Multiple inositol polyphosphate histidine phosphatase, 1; Multiple inositol polyphosphate phosphatase 1; multiple inositol polyphosphate phosphatase 2
Species:	Human
Source:	P. pastoris
Accession:	Q9UNW1 (31S-487L)
Gene ID:	9562
Molecular Weight:	Approximately 55.3 kDa

PROPERTIES

AA Sequence	S L L E P R D P V A S S L S P Y F G T K T R Y E D V N P V L L S G P E A P W R D P E L L E G T C T P V Q L V A L I R H G T R Y P T V K Q I R K L R Q L H G L L Q A R G S R D G G A S S T G S R D L G A A L A D W P L W Y A D W M D G Q L V E K G R Q D M R Q L A L R L A S L F P A L F S R E N Y G R L R L I T S S K H R C M D S S A A F L Q G L W Q H Y H P G L P P P D V A D M E F G P P T V N D K L M R F F D H C E K F L T E V E K N A T A L Y H V E A F K T G P E M Q N I L K K V A A T L Q V P V N D L N A D L I Q V A F F T C S F D L A I K G V K S P W C D V F D I D D A K V L E Y L N D L K Q Y W K R G Y G Y T I N S R S S C T L F Q D I F Q H L D K A V E Q K Q R S Q P I S S P V I L Q F G H A E T L L P L L S L M G Y F K D K E P L T A Y N Y K K Q M H R K F R S G L I V P Y A S N L I F V L Y H C E N A K T P K E Q F R V Q M L L N E K V L P L A Y S Q E T V S F Y E D L K N H Y K D I L Q S C Q T S E E C E L A R A N S T S D E L
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
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.
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	MINPP1 Protein acts as a dual-function phosphatase, exhibiting phosphoinositide 5- and phosphoinositide 6-phosphatase activity to regulate cellular levels of inositol pentakisphosphate (InsP5) and inositol hexakisphosphate (InsP6). Additionally, it functions as a 2,3-bisphosphoglycerate 3-phosphatase, catalyzing the dephosphorylation of 2,3-bisphosphoglycerate (2,3-BPG) to produce phospho-D-glycerate without the formation of 3-phosphoglycerate. These activities are crucial for cellular processes, including bone development, specifically in endochondral ossification, and may contribute to the transition of chondrocytes from proliferation to hypertrophy. By regulating intracellular inositol polyphosphates, MINPP1 plays a potential role in controlling intracellular cation homeostasis, impacting free cation availability required for neural cell signaling.

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

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