SMARCA4 Protein, Human (P.pastoris, His)

Cat. No.:	HY-P71784
Synonyms:	ATP dependent helicase SMARCA4; ATP-dependent helicase SMARCA4; Brahma protein like 1; BRG1; BRG1 protein; BRG1-associated factor 190A; MRD16
Species:	Human
Source:	P. pastoris
Accession:	P51532 (E700-F1246)
Gene ID:	6597
Molecular Weight:	Approximately 64.8 kDa

PROPERTIES

AA Sequence	E V D A R H I I E N A K Q D V D D E Y G V S Q A L A R G L Q S Y Y A V A H A V T E R V D K Q S A L M V N G V L K Q Y Q I K G L E W L V S L Y N N N L N G I L A D E M G L G K T I Q T I A L I T Y L M E H K R I N G P F L I I V P L S T L S N W A Y E F D K W A P S V V K V S Y K G S P A A R R A F V P Q L R S G K F N V L L T T Y E Y I I K D K H I L A K I R W K Y M I V D E G H R M K N H H C K L T Q V L N T H Y V A P R R L L L T G T P L Q N K L P E L W A L L N F L L P T I F K S C S T F E Q W F N A P F A M T G E K V D L N E E E T I L I I R R L H K V L R P F L L R R L K K E V E A Q L P E K V E Y V I K C D M S A L Q R V L Y R H M Q A K G V L L T D G S E K D K K G K G G T K T L M N T I M Q L R K I C N H P Y M F Q H I E E S F S E H L G F T G G I V Q G L D L Y R A S G K F E L L D R I L P K L R A T N H K V L L F C Q M T S L M T I M E D Y F A Y R G F K Y L R L D G T T K A E D R G M L L K T F N E P G S E Y F I F L L S T R A G G L G L N L Q S A D T V I I F D S D W N P H Q D L Q A Q D R A H R I G Q Q N E V R V L R L C T V N S V E E K I L A A A K Y K L N V D Q K V I Q A G M F D Q K S S S H E R R A F
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm sterile filtered PBS, 6% Trehalose, 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.
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 SMARCA4 Protein is a multifaceted regulator involved in both transcriptional activation and repression through chromatin remodeling, contributing to alterations in DNA-nucleosome topology. As a component of SWI/SNF chromatin remodeling complexes, it exerts ATP-dependent enzymatic activities that dynamically modify chromatin structure by influencing DNA-histone contacts within nucleosomes. In the context of the CREST-BRG1 complex, SMARCA4 participates in orchestrating calcium-dependent release of repressor complexes and recruitment of activator complexes, modulating transcriptional processes. Particularly in neural development, SMARCA4 is crucial for the switch from proliferating neural stem/progenitor cells to postmitotic neurons, acting as a corepressor of ZEB1 and facilitating E-cadherin transcription. Additionally, it engages in diverse interactions with various proteins, contributing to its involvement in essential cellular functions, including growth regulation, chromatin remodeling, and transcriptional control. The intricate role of SMARCA4 in these processes highlights its significance in cellular differentiation, chromatin dynamics, and gene expression regulation.

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