

Calumenin Protein, Human (HEK293, His)

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| Cat. No.: | HY-P7713 |
| Synonyms: | rHuCalumenin, His; Calumenin; Crocalbin; IEF SSP 9302; CALU |
| Species: | Human |
| Source: | HEK293 |
| Accession: | O43852 (K20-F315) |
| Gene ID: | 813 |
| Molecular Weight: | 43-55 kDa |

PROPERTIES

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| AA Sequence | <pre> K P T E K K D R V H H E P Q L S D K V H N D A Q S F D Y D H D A F L G A E E A K T F D Q L T P E E S K E R L G K I V S K I D G D K D G F V T V D E L K D W I K F A Q K R W I Y E D V E R Q W K G H D L N E D G L V S W E E Y K N A T Y G Y V L D D P D P D D G F N Y K Q M M V R D E R R F K M A D K D G D L I A T K E E F T A F L H P E E Y D Y M K D I V V Q E T M E D I D K N A D G F I D L E E Y I G D M Y S H D G N T D E P E W V K T E R E Q F V E F R D K N R D G K M D K E E T K D W I L P S D Y D H A E A E A R H L V Y E S D Q N K D G K L T K E E I V D K Y D L F V G S Q A T D F G E A L V R H D E F H H H H H H </pre> |
| Biological Activity | Data is not available. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.0. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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

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| Background | Calumenin, belonging to the CREC protein family, is a multiple EF-hand Ca ²⁺ -binding protein, and has been found to have unique C-terminal SR retention signal HDEF. CP can combine with ryanodine receptor to active sarcoplasmic reticulum Ca ²⁺ |
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ATPase (SERCA2a) to regulate the release of intracellular calcium, intake, and storage of calcium in order to maintain homeostasis of calcium cycling. CP can also relieve ERS of myocardial cells and suppress ERS-mediated apoptosis. CP can relieve ERS-initiated apoptosis in viral myocarditis^[1].

REFERENCES

- [1]. Yu Wang, et al. Calumenin relieves cardiac injury by inhibiting ERS-initiated apoptosis during viral myocarditis. *Int J Clin Exp Pathol*. 2017 Jul 1;10(7):7277-7284.
- [2]. Pengli Zheng, et al. Calumenin and fibulin-1 on tumor metastasis: Implications for pharmacology. *Pharmacol Res*. 2015 Sep;99:11-5.
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Caution: Product has not been fully validated for medical applications. For research use only.

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