

CALML3 Protein, Human (GST)

Cat. No.:	HY-P72110
Synonyms:	CALL3_HUMAN; CALML3; Calmodulin like 3; Calmodulin related protein NB 1; Calmodulin-like protein 3; Calmodulin-related protein NB-1; CaM like protein; CaM-like protein; CLP; OTTHUMP00000019004
Species:	Human
Source:	E. coli
Accession:	P27482 (M1-K149)
Gene ID:	810
Molecular Weight:	Approximately 43.9 kDa

PROPERTIES

AA Sequence	<p>M A D Q L T E E Q V T E F K E A F S L F D K D G D G C I T T R E L G T V M R S L</p> <p>G Q N P T E A E L R D M M S E I D R D G N G T V D F P E F L G M M A R K M K D T</p> <p>D N E E E I R E A F R V F D K D G N G F V S A A E L R H V M T R L G E K L S D E</p> <p>E V D E M I R A A D T D G D G Q V N Y E E F V R V L V S K</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.
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.
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	<p>The CALML3 protein appears to serve a dual role by functioning as a specific light chain for unconventional myosin-10 (MYO10) and enhancing MYO10 translation. Acting potentially as a chaperone, CALML3 aids in the synthesis of the emerging MYO10 heavy chain protein. Furthermore, CALML3 exhibits the capacity to compete with calmodulin for binding to cellular substrates, suggesting a regulatory role in calcium-dependent signaling pathways. Particularly, its interaction with MYO10 is calcium-dependent and proves essential for MYO10 function in the extension of filopodia—a crucial process for cellular morphology. The intricate interplay between CALML3 and MYO10 underscores its significance in regulating cytoskeletal dynamics and cellular functions, prompting further investigation into the precise molecular mechanisms underlying these interactions and their functional consequences.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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