Data Sheet (Cat.No.TMPY-03384)

TargetMol

CALM2 Protein, Human, Recombinant (His)

General Information

Synonyms:	caM;calmodulin 2 (phosphorylase kinase, delta);PHKD;calmodulin 2 (phosphorylase kinase, δ);PHKD2;LQT15;CAMII
Protein Construction:	A DNA sequence encoding the mature form of human CALM2 (P0DP24) (Met1-Lys149) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	P0DP24
Molecular Weight:	18.7 kDa (predicted); 19-22 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Calmodulin 2, also known as CALM2, is a calmodulin. Calmodulin 2 mediates the control of a large number of enzymes, ion channels and other proteins by Ca(2+). It is involved in a genetic pathway that regulates the centrosome cycle and progression through cytokinesis. Calmodulin 2 gene may be a genetic determinant of hip osteoarthritis (OA). OA is a degenerative disease characterized by gradual loss of articular cartilage and is a

leading cause of disability in elderly populations. CALM2 was most abundantly expressed in articular chondrocytes and OA cartilage.

Reference

Egli R, et al. (1993) Localization of the human bona fide calmodulin genes CALM1, CALM2, and CALM3 to chromosomes 14q24-q31, 2p21.1-p21.3, and 19q13.2-q13.3. Genomics. 16(2): 461-5.
Mikiko, et al. (2002) Centrosomal proteins CG-NAP and kendrin provide microtubule nucleation sites by anchoring gamma-tubulin ring complex. Mol Biol Cell. 13(9):3235-45.
SenGupta B, et al. (1987) Molecular analysis of human and rat calmodulin complementary DNA clones. Evidence for additional active genes in these species. J Biol Chem. 262(34): 16663-70.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481