Data Sheet (Cat.No.TMPK-00678)

TargetMol

Procalcitonin/CALCA Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	CGRP;Katacalcin;PDN-21;CGRP-I;CGRP1;Calcitonin 1;Calcitonin;CCP;CALCA;PCT;KC;CT; Procalcitonin;CALC1
Protein Construction:	Val26-Phe119
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q99JA0
Molecular Weight:	36.9 kDa (predicted). Due to glycosylation, the protein migrates to 42-46 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

Specific fragments of methylation changes in the target gene (Calca) were identified by IGV analysis. CGRP was applied to compare the effects on ASCs-T2DM morphology via phalloidin staining, proliferation through CCK-8 assay, and osteogenic differentiation with osteogenic staining, qPCR, and repair of calvarial defect. Furthermore, 5-azacytidine (5-az) was used to intervene ASCs-T2DM to verify the relationship between the methylation level of

the target fragment and expression of Calca.

Reference

Wang L, et al. Hypermethylation in Calca Promoter Inhibited ASC Osteogenic Differentiation in Rats with Type 2 Diabetic Mellitus. Stem Cells Int. 2020 Mar 4;2020:5245294. doi: 10.1155/2020/5245294. PMID: 32190058; PMCID: PMC7073499.

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