Recombinant CALL4 protein (His tag)

Catalog Number	540993
Synonyms	Serologically defined breast cancer antigen NY-BR-20
Species	Human
Expression System	E. coli
Accession	Q96GE6
Molecular Weight	Predictes a molecular mass of 18.76 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	48-196
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 48-196 aa (Q96GE6) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Calmodulin-like protein 4 (CALML4) fragment (residues 48-196) is a high-purity protein designed for studying the functional EF-hand domains. This 149-amino acid fragment includes all four EF-hand motifs (EF-hand 1-4), making it an essential tool for investigating calcium-binding properties and their role in microvilli organization and cellular adhesion mechanisms. Calmodulin-like protein 4, encoded by the CALML4 gene, is a serologically defined breast cancer antigen (NY-BR-20) that plays a critical role in epithelial brush border differentiation. As part of the intermicrovillar adhesion complex (IMAC), it controls microvilli organization and length by serving as a light chain for MYO7B, facilitating efficient targeting of IMAC to brush border microvilli tips. The protein localizes specifically to microvillus projections in cells, with both Isoform 1 and Isoform 6 enriched at the distal tips of enterocyte microvilli, highlighting its importance in cellular structure and adhesion processes.