Data Sheet (Cat.No.TMPY-01345)

TargetMol

ACBD6 Protein, Human, Recombinant (His)

General Information

Synonyms:	acyl-CoA binding domain containing 6
Protein Construction:	A DNA sequence encoding the full length of human ACBD6 (NP_115736.1) (Met 1-Ala 282) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q9BR61
Molecular Weight:	33.4 kDa (predicted); 36 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:	> 96 % as determined by SDS-PAGE
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 50 mM Tris, 100 mM NaCl, pH 8.0.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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Human acyl-coenzyme A binding domain-containing member 6 (ACBD6) is a modular protein that carries an acyl-CoA binding domain at its N terminus and two ankyrin motifs at its C terminus. In mammals, there are six members of the acyl-CoA binding domain-containing (ACBD) family, and their annotation is not uniform. All six ACBD proteins contain an ACB domain at the N terminus, but they do not share significant homology at the C-terminal region. ACBD6 is a 32 kDa protein that is predicted by sequence analysis to carry an ACB domain between residues

42 and 125 and two ANK motifs at its C terminus. This protein binds long-chain acyl-CoAs with a strong preference for unsaturated, C18:1-CoA and C20:4-CoA, over saturated, C16:0-CoA, acyl species. ACBD6 is not a ubiquitous protein, but it is expressed in hematopoietic tissues and appears to be restricted to primitive stem cells present in those tissues with functions in blood and vessel development. ACBD6 was detected in bone marrow, spleen, placenta, cord blood, circulating CD34+ progenitors, and embryonic-like stem cells derived from placenta. In placenta, the protein was only detected in CD34+ progenitor cells present in blood and CD31+ endothelial cells surrounding the blood vessels. These cells were also positive for the marker CD133, and they probably constitute hemangiogenic stem cells, precursors of both blood and vessels. We propose that human ACBD6 represents a cellular marker for primitive progenitor cells with functions in hematopoiesis and vascular endothelium development.

Reference

Soupene E,et al.(2008) Characterization of an acyl-coenzyme A binding protein predominantly expressed in human primitive progenitor cells. J Lipid Res. 49(5): 1103-12.