

ABCD3 Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702197
Synonyms:	ATP-binding cassette sub-family D member 3; 70 kDa peroxisomal membrane protein; PMP70
Species:	Human
Source:	E. coli Cell-free
Accession:	P28288 (M1-S659)
Gene ID:	5825
Molecular Weight:	81.5 kDa

PROPERTIES

AA Sequence

MAAFSKYLTA	RNSSLAGAAF	LLLCLLHKRR	RALGLHGKKS
GKPP LQNNEK	EGKKERAVVD	KVFFSRLIQI	LKIMVPRTFC
KETGYLVLIA	VMLVSRTYCD	VWMIQNGTLI	ESGIIGRSRK
DFKRYLLNFI	AAMPLISLVN	NFLKYGLNEL	KLCFRVRLTK
YLYEEYLQAF	TYYKMGNLDN	RIANPDQLLT	QDVEKFCNSV
VDLYSNLSKP	FLDIVLYIFK	LTSAIGAQGP	ASMMAYLVVS
GLFLTRLRRP	IGKMTITEQK	YEGEYRYVNS	RLITNSEEIA
FYNGNKREKQ	TVHSVFRKLV	EHLHNFILFR	FSMGFIDSII
AKYLATVVGY	LVVSRPFLDL	SHPRHLKSTH	SELLEDYYQS
GRMLLRMSQA	LGRIVLAGRE	MTRLAGFTAR	ITELMQVLKD
LNHGKYERTM	VSQQEKGIEG	VQVIPLIPGA	GEIIIADNII
KFDHVPLATP	NGDVLIRDLN	FEVRSGANVL	ICGPNCGGKS
SLFRVLGELW	PLFGGRLTKP	ERGKLFYVPQ	RPYMTLGTLR
DQVIYPDGRE	DQKRKGISDL	VLKEYLDNVQ	LGHILEREGG
WDSVQDWM DV	LSGG EKQRMA	MARLFYHKPQ	FAILDECTSA
VSVDVEGYIY	SHCRKVGITL	FTVSHRKS LW	KHHEY YLHMD
GRGNYEFKQI	TEDTVEFGS		

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

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 ddH₂O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**

ABCD3, a member of the ATP-binding cassette (ABC) family, serves as a versatile ATP-dependent transporter with broad substrate specificity, facilitating the transport of various metabolites, including long-chain fatty acids (LCFA)-CoA, dicarboxylic acids-CoA, long-branched-chain fatty acids-CoA, and bile acids from the cytosol to the peroxisome lumen for beta-oxidation. This transporter exhibits fatty acyl-CoA thioesterase and ATPase activities, likely contributing to the hydrolysis of fatty acyl-CoAs into free fatty acids before their ATP-dependent transport into peroxisomes. ABCD3's pivotal role in these processes highlights its significance in the regulation of LCFAs and energy metabolism, specifically in the degradation and biosynthesis of fatty acids through beta-oxidation.

Caution: Product has not been fully validated for medical applications. For research use only.

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