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Product Information

SILu™Lite APOB48, Apolipoprotein B-48, human recombinant, expressed in HEK 293 cells
MS Protein Standard

Catalog Number **MSST0056**
Storage Temperature –20 °C

Synonym: Apo B-48

Product Description

SILu™Lite APOB48 is a recombinant human protein expressed in human 293 cells. It consists of 2,172 amino acids, with a calculated molecular mass of 243.2 kDa (including C-terminal polyhistidine and FLAG® tags). SILu™Lite APOB48 is an analytical standard designed to be used as starting material for preparation of calibrators and controls in LC-MS applications.

Apolipoprotein B-48 (Apo B-48) is known to be the only specific marker of intestinal chylomicron (CM) particles.[1] The amino acid sequence of apoB-48 represents 48% of the initial sequence of apolipoprotein B-100 (Apo B-100). Apo B-48 is synthesized only by the intestine in humans, while Apo B-100 is synthesized primarily by the liver.[1] Therefore, Apo B-48 is a most appropriate biomarker for cardiovascular and nutritional investigation of postprandial CM metabolism.[1] In a recent study, Apo B-48 was discovered as a novel biomarker in amyotrophic lateral sclerosis patient fibroblasts.[2]

Each vial contains 50 μg of SILu™Lite APOB48 standard in a solution of sodium phosphate with 1 mM EDTA and 25% glycerol. Vial content was determined by the Bradford method using BSA as a calibrator.

Purity: ≥95% (SDS-PAGE)

UniProt: P04114

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at –20 °C. The product retains its concentration for at least 2 years as supplied.

After initial thawing it is recommended to store the protein in working aliquots at –20 °C.

References

1. Masumi, A. et al., Apolipoprotein B-48: a unique marker of chylomicron metabolism. *Adv. Clin. Chem.,* **64**, 117-177 (2014).
2. Narayan, M. et al., Identification of Apo B48 and other novel biomarkers in amyotrophic lateral sclerosis patient fibroblasts. *Biomark. Med.,* **10(5)**, 453-462 (2016).

Appendix

Sequence Information:

The C-terminal polyhistidine and FLAG tags are italicized.

EEEMLENVSLVCPKDATRFKHLRKYTYNYEAESSSGVPGTADSRSATRINCKVELEVPQLCSFILKTSQCTLKEVYGFN
PEGKALLKKTKNSEEFAAAMSRYELKLAIPEGKQVFLYPEKDEPTYILNIKRGIISALLVPPETEEAKQVLFLDTVYGNCS
THFTVKTRKGNVATEISTERDLGQCDRFKPIRTGISPLALIKGMTRPLSTLISSSQSCQYTLDAKRKHVAEAICKEQHLFL
PFSYKNKYGMVAQVTQTLKLEDTPKINSRFFGEGTKKMGLAFESTKSTSPPKQAEAVLKTLQELKKLTISEQNIQRANL
FNKLVTELRGLSDEAVTSLLPQLIEVSSPITLQALVQCGQPQCSTHILQWLKRVHANPLLIDVVTYLVALIPEPSAQQLRE
IFNMARDQRSRATLYALSHAVNNYHKTNPTGTQELLDIANYLMEQIQDDCTGDEDYTYLILRVIGNMGQTMEQLTPELK
SSILKCVQSTKPSLMIQKAAIQALRKMEPKDKDQEVLLQTFLDDASPGDKRLAAYLMLMRSPSQADINKIVQILPWEQN
EQVKNFVASHIANILNSEELDIQDLKKLVKEALKESQLPTVMDFRKFSRNYQLYKSVSLPSLDPASAKIEGNLIFDPNNYL
PKESMLKTTLTAFGFASADLIEIGLEGKGFEPTLEALFGKQGFFPDSVNKALYWVNGQVPDGVSKVLVDHFGYTKDDK
HEQDMVNGIMLSVEKLIKDLKSKEVPEARAYLRILGEELGFASLHDLQLLGKLLLMGARTLQGIPQMIGEVIRKGSKNDF
FLHYIFMENAFELPTGAGLQLQISSSGVIAPGAKAGVKLEVANMQAELVAKPSVSVEFVTNMGIIIPDFARSGVQMNTNF
FHESGLEAHVALKAGKLKFIIPSPKRPVKLLSGGNTLHLVSTTKTEVIPPLIENRQSWSVCKQVFPGLNYCTSGAYSNAS
STDSASYYPLTGDTRLELELRPTGEIEQYSVSATYELQREDRALVDTLKFVTQAEGAKQTEATMTFKYNRQSMTLSSE
VQIPDFDVDLGTILRVNDESTEGKTSYRLTLDIQNKKITEVALMGHLSCDTKEERKIKGVISIPRLQAEARSEILAHWSPA
KLLLQMDSSATAYGSTVSKRVAWHYDEEKIEFEWNTGTNVDTKKMTSNFPVDLSDYPKSLHMYANRLLDHRVPQTD
MTFRHVGSKLIVAMSSWLQKASGSLPYTQTLQDHLNSLKEFNLQNMGLPDFHIPENLFLKSDGRVKYTLNKNSLKIEIP
LPFGGKSSRDLKMLETVRTPALHFKSVGFHLPSREFQVPTFTIPKLYQLQVPLLGVLDLSTNVYSNLYNWSASYSGGN
TSTDHFSLRARYHMKADSVVDLLSYNVQGSGETTYDHKNTFTLSYDGSLRHKFLDSNIKFSHVEKLGNNPVSKGLLIF
DASSSWGPQMSASVHLDSKKKQHLFVKEVKIDGQFRVSSFYAKGTYGLSCQRDPNTGRLNGESNLRFNSSYLQGTN
QITGRYEDGTLSLTSTSDLQSGIIKNTASLKYENYELTLKSDTNGKYKNFATSNKMDMTFSKQNALLRSEYQADYESLR
FFSLLSGSLNSHGLELNADILGTDKINSGAHKATLRIGQDGISTSATTNLKCSLLVLENELNAELGLSGASMKLTTNGRF
REHNAKFSLDGKAALTELSLGSAYQAMILGVDSKNIFNFKVSQEGLKLSNDMMGSYAEMKFDHTNSLNIAGLSLDFSS
KLDNIYSSDKFYKQTVNLQLQPYSLVTTLNSDLKYNALDLTNNGKLRLEPLKLHVAGNLKGAYQNNEIKHIYAISSAALS
ASYKADTVAKVQGVEFSHRLNTDIAGLASAIDMSTNYNSDSLHFSNVFRSVMAPFTMTIDAHTNGNGKLALWGEHTG
QLYSKFLLKAEPLAFTFSHDYKGSTSHHLVSRKSISAALEHKVSALLTPAEQTGTWKLKTQFNNNEYSQDLDAYNTKD
KIGVELTGRTLADLTLLDSPIKVPLLLSEPINIIDALEMRDAVEKPQEFTIVAFVKYDKNQDVHSINLPFFETLQEYFERNR
QTIIVVLENVQRNLKHINIDQFVRKYRAALGKLPQQANDYLNSFNWERQVSHAKEKLTALTKKYRITENDIQIALDDAKIN
FNEKLSQLQTYMI*DYKDDDDKGHHHHHHHHGGQ*