



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human LSAMP Protein
Catalog Number: hRP-1083
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human Limbic system-associated membrane protein (LSAMP) gene is a neuronal surface glycoprotein found in cortical and subcortical regions of the limbic system. During development of the limbic system, LSAMP protein is found on the surface of axonal membranes and growth cones, where it acts as a selective homophilic adhesion molecule, and guides the development of specific patterns of neuronal connections. Recent data also indicated that human LSAMP may also plays important role in oncogenesis, and coronary artery disease development.

Full-length human mature LSAMP cDNA (29 -315aa, derived from BC033803) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol:	LSAMP (IGLON3; LAMP)
Accession Number:	NP_002329
Species:	Human
Size:	50 µg / Vial
Composition:	0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Kresse,S.H., et al., *LSAMP, a novel candidate tumor suppressor gene in human*



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osteosarcomas, identified by array comparative genomic hybridization. Genes Chromosomes Cancer 48 (8), 679-693 (2009)

Behan, A.T., *Proteomic analysis of membrane microdomain-associated proteins in the dorsolateral prefrontal cortex in schizophrenia and bipolar disorder reveals alterations in LAMP, STXBP1 and BASP1 protein Expression. Mol. Psychiatry 14 (6), 601-613 (2009)*

Wang, L., *Polymorphisms of the tumor suppressor gene LSAMP are associated with left main coronary artery disease. Ann. Hum. Genet. 72 (PT 4), 443-453 (2008)*

Applications

1. May be used for in vitro LSAMP mediated neuronal connection regulation study for neurogenesis with this protein as either coating matrix protein or soluble factor.
2. May be used for LSAMP protein-protein interaction assay.
3. Potential diagnostic biomarker protein for various tumor and neuronal diseases.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFRSVDFNRGTDNITVRQGDTAILRCVVEDKNSKVAW
LNRSGIIFAGHDKWSLDPRVELEKRHSLEYSRLRIQKVDVYDEGSYTCVQTQHEPKTSQVYLIV
QVPPKISNISSDVTVNESNVTLCMANGRPEPVITWRHLTPTGREFEGEEYEILEILGITREQS
GKYECKAANEVSSADV KQVKVTVNYPPTITESKSNEATTGRQASLKCEASAVPAPDFEWYRDDT
RINSANGLEIKSTEGQSSLTVTNVTEEHYGNVTCVAANKLGVTNASLVLFRPGSVRGIN