



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human MMLT11 Protein
Catalog Number: hTF-1443
Manufacturer: LD Biopharma, Inc.

Introduction

The gene variously symbolized ALL1, HRX, or MLL located on 11q23 has been demonstrated to be fused with a number of translocation partners in cases of leukemia. t(1;11)(q21;q23) translocations that fused the MLL gene to a gene on chromosomal band 1q21 in 2 infants with acute myelomonocytic leukemia have been demonstrated. The N-terminal portion of the MLL gene is critical for leukemogenesis in translocations involving band 11q23. Human MMLT11 gene encodes 90 amino acids. MMLT11 gene was found to be highly expressed in the thymus but not in peripheral lymphoid tissues. In contrast to its restricted distribution in normal hematopoietic tissue, MMLT11 gene was expressed in all leukemic cell lines tested.

Full-length human MMLT11 (2 - 90 aa, derived from BC022448) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site Tag and expressed in E.coli as inclusion bodies. This protein was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: MMLT11 (AF1Q)
Accession Number: NP_006809
Species: Human
Size: 25 µg / Vial
Composition: 0.25 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 7 days.

Key References

Tiberio P, et al., *AF1q: a novel mediator of basal and 4-HPR-induced apoptosis in*



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ovarian cancer cells. PLoS ONE 7 (6), E39968 (2012)

Parcelier A, et al., *AF1q/MLLT11 regulates the emergence of human prothymocytes through cooperative interaction with the Notch signaling pathway.* Blood 118 (7), 1784-1796 (2011)

Co NN, et al., *AF1q enhancement of gamma irradiation-induced apoptosis by up-regulation of BAD expression via NF-kappaB in human squamous carcinoma A431 cells.* Oncol. Rep. 24 (2), 547-554 (2010)

Strunk,C.J., et al., *Elevated AF1q expression is a poor prognostic marker for adult acute myeloid leukemia patients with normal cytogenetics.* Am. J. Hematol. 84 (5), 308-309 (2009)

Applications

1. May be used for in vitro MMLT11 mediated gene transcription pathway regulation for T cell differentiation or cancer cell apoptosis with “ProFectin” reagent based intracellular delivery of this protein.
2. May be used as specific protein substrate for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
3. May be used for MMLT11 protein-protein interaction mapping.
4. Potential biomarker protein for monitoring acute myeloid leukemia treatment.
5. As immunogen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGEFRDPVSSQYSSFLFWRMPIPELDLSELEGLGLSDTAT
YKVKDSSVGKMIQATAADQEKNPEDGLLEYSTFNFWRAPIASIHSFELDLL