



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human NOVA1 Protein
Catalog Number: hRP-1602
Manufacturer: LD Biopharma, Inc.

Introduction

Human RNA-binding protein Nova-1 (NOVA1) gene encodes a neuron-specific RNA-binding protein, a member of the Nova family of paraneoplastic disease antigens that is recognized and inhibited by paraneoplastic antibodies. These antibodies are found in the sera of patients with paraneoplastic opsoclonus-ataxia, breast cancer, and small cell lung cancer. Alternatively spliced transcripts encoding distinct isoforms have been described.

Full-length human NOVA1 (509 aa, Isoform-I, derived from BC075038) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site Tag and 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: NOVA1
Accession Number: NP_002506.2
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 30 days.

Key References

ASTich O, et al., *Paraneoplastic antibody during follow-up of a patient with anti-Ri-associated paraneoplastic neurological syndrome*
Acta Neurol. Scand. 119 (5), 338-340 (2009)

Ratti A, et al., *Post-transcriptional regulation of neuro-oncological ventral antigen 1 by the neuronal RNA-binding proteins ELAV.* *J. Biol. Chem.* 283 (12), 7531-7541 (2008)



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Jensen KB, et al., *Nova-1 regulates neuron-specific alternative splicing and is essential for neuronal viability*. *Neuron* 25 (2), 359-371 (2000)

Applications

1. May serve as auto-antibodies detection reagent, which will react within the sera of patients with paraneoplastic opsoclonus-ataxia, breast cancer, and small cell lung cancer.
2. May be used for studying NOVA1 mediated RNA splicing regulations for controlling neuronal cells differentiation in vitro by intracellular delivery of this protein with ProFectin reagent.
3. May be used for mapping NOVA1 protein-protein interaction.
4. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
5. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFMAAAPIQQNGTHTGVPIIDLPPDSRKRPLEAPPEA
GSTKRTNTGEDGQYFLKVLIPSYAAGSIIGKGGQTIIVQLQKETGATIKLSKSKDFYPGTTERVC
LIQGTVEALNAVHGFIAEKIREMPQNVAKTEPVSILQPQTTVNPDRIKQTLPSSTTTKSSPSD
PMTTSRANQVKIIVPNSTAGLIIGKGGATVKAVMEQSGAWVQLSQKPDGINLQERVVTVSGEPE
QNRKAVELIIQKIQEDPQSGSCLNISYANVTGPVANSNPTGSPYANTA EVLPTAAAAAGLLGHA
NLAGVAAFPVAVLSGFTGNDLVAITSA LNTLASYGYNLNTLGLGLSQAAATGALAAAAASANPAA
AAANLLATYASEASASGSTAGGTAGTFALGSLAAATAATNGYFGAASPLAASAILGTEKSTDGS
KDVVEIAVPENLVGAILGKGGKTLVEYQELTGARIQISKKGFEVPGTRNRKVTITGTPAATQAA
QYLITQRITYEQGVRAANPQKVG