



LD Biopharma, Inc.  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human TADA3 Protein  
**Catalog Number:** hRP-1554  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

DNA-binding transcriptional activator proteins increase the rate of transcription by interacting with the transcriptional machinery bound to the basal promoter in conjunction with adaptor proteins, possibly by acetylation and destabilization of nucleosomes. The protein encoded by human transcriptional adapter 3 (TADA3) gene is a transcriptional activator adaptor and a component of the histone acetyl transferase (HAT) coactivator complex which plays a crucial role in chromatin modulation and cell cycle progression. Along with the other components of the complex, TADA3 protein links transcriptional activators bound to specific promoters, to histone acetylation and the transcriptional machinery. The protein is also involved in the stabilization and activation of the p53 tumor suppressor protein that plays a role in the cellular response to DNA damage.

Full-length human TADA3L (431aa, derived from BC013433) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site Tags 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:** TADA3 (ADA3; NGG1; STAF54; TADA3L)  
**Accession Number:** NP\_006345.1  
**Species:** Human  
**Size:** 40 µg / Vial  
**Composition:** 0.4 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose, 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

Zencir S, et al., *Identification of transcriptional and phosphatase regulators as interaction partners of human ADA3, a component of histone acetyltransferase complexes*. Biochem. J. 450 (2), 311-320 (2013)



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Mirza S, et al., *Cytoplasmic localization of alteration/deficiency in activation 3 (ADA3) predicts poor clinical outcome in breast cancer patients.* Breast Cancer Res. Treat. 137 (3), 721-731 (2013)

Mohibi S, et al., *Mammalian alteration/deficiency in activation 3 (Ada3) is essential for embryonic development and cell cycle progression.* J. Biol. Chem. 287 (35), 29442-29456 (2012)

Li CW, et al., *Human ADA3 regulates RARalpha transcriptional activity through direct contact between LxxLL motifs and the receptor coactivator pocket.* Nucleic Acids Res. 38 (16), 5291-5303 (2010)

## Applications

1. May be used as auto-antibodies detection reagent, which will react with sera of some auto-immuno-diseases and cancer patients.
2. May be used for in vitro human TADA3 mediated *histone acetyltransferase complexes* activities' regulation study by intracellularly delivery this protein with "ProFectin" reagent.
3. May be used for TADA3 protein-protein interaction assay.
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

MASMTGGQQMGRGHHHHHENLYFQGGFSELKDCPLQFHDFKSVDHLKVCPRYTAVLARSEDD  
GIGIEELDTLQLELETLLSSASRRLRVLEAETQILTDWQDKKGD RRFLKLGRDHELGAPPKHGK  
PKKQKLE GKAGHGPGPGPRPKSKNLQPKIQEYEF TDDPIDVPRI PKNDAPNRFWASVEPYCAD  
ITSEEVRTL EELLKPPPEDEAEHYKIPPLGKHYSQRWAQEDLLEEQKDGARAAAVADKKKGLMGP  
LTELDTKDVDALLKKSEAQHEQPEDGCPFGALTQRLQLALVEENIISP MEDSPI PDMSGKESGA  
DGASTSPRNQNKPF SVPHTKSLESRIKEELIAQGLLESEDRPAEDSEDEVLAELRKRQAELKAL  
SAHNRTKKHDLRLRAKEEVSRQELRQRVRMADNEVMDAFR KIMAAARQKKRTPTKKEKDQAWKTL  
KERESILKLLDG