



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human SWSAP1 Protein
Catalog Number: hRP-1717
Manufacturer: LD Biopharma, Inc.

Introduction

Human ATPase SWSAP1 gene encodes a ATPase which is preferentially stimulated by single-stranded DNA and is involved in homologous recombination repair (HRR). Has a DNA-binding activity, which is independent of its ATPase activity. SWSAP1 plays an important role in Shu complex for DNA damage repair pathway regulation.

Full-length human SWSAP1 cDNA (145 aa) gene was constructed using gene synthesis technology with codon optimization. A tag of 31 aa (T7/His/TEV cleavage site) was fused to SWSAP1 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: SWSAP1 (C19orf39; SWS1AP1; ZSWIM7Ap1)
Accession Number: NP_787067
Species: Human
Size: 50 µg / Vial
Composition: 1.0 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

Stephen Godin, et al., *The Shu complex interacts with Rad51 through the Rad51 paralogues Rad55-Rad57 to mediate error-free recombination.* Nuclei Acid Research. Vol.41, No.8. pp4525-4534 (2013)



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Liu T, et al., *hSWS1.SWSAP1 is an evolutionarily conserved complex required for efficient homologous recombination repair*. J. Biol. Chem. 286 (48), 41758-41766 (2011)

Applications

1. May be used for in vitro SWSAP1 protein mediated DNA homologous recombination repair (HRR) pathway regulation study in various cancer cells with “ProFectin” reagent based intracellular delivery of this protein.
2. May be used for protein-protein interaction assay.
3. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein, by monitoring SWSAP1 expression level in tumor tissue may guide anti-cancer radiation therapy
5. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGFPAAGPPLLLLGTTPGSGKTALLFAAALEAAGEGQGP
VLFLTRRPLQSMRGTGTTLDPMRLQKIRFQYPPSTRELFRLLCSEAHEAPGPAPSLLLLDGLEE
YLAEDPEPQEAAAYLIAALLDAAHFSHRLGPGRDCGLMVALQTQEEAGSGDVLHLALLQRYFPA
QCWLQPDAPGPGEHGLRACLEPGGLGPRTEWWVTFRSDGEMMIAPWPTQAGDPSSGKGSSSGGQ
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