



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human H2AX Protein
Catalog Number: hRP-0056
Manufacturer: LD Biopharma, Inc.

Introduction

H2AX is one of several genes coding for histone H2A. In cells, the DNA is wrapped around histone-groups, consisting of core histones H2A, H2B, H3 and H4. Thus, the H2AX contributes to the histone-formation and therefore the structure of DNA.

H2AX becomes phosphorylated on serine 139, then called gamma-H2AX, as a reaction on DNA Double-strand breaks (DSB). Gamma-H2AX is a sensitive target for looking at DSBs in cells.

This full-length, non-fusion recombinant human H2AX protein was constructed and expressed in *E. coli* as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and purified chromatographically.

Gene Symbol: H2AX
Accession Number: NP_002096
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, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 7 days.



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Key References

Rogakou, E.P., et al. DNA double-stranded breaks induce histone H2AX phosphorylation on serine 139. *J. Biol. Chem.* 273 (10), 5858-5868 (1998)

Applications

1. Soluble protein which may be used as substrate for enzymatic assay.
2. Active protein, for in vitro histone /DNA reconstitution assay.
3. As Immunogen for specific antibody production.

Quality Control

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

Recombinant Protein Sequence

MSGRGKTGGKARAKAKSRSSRAGLQFPVGRVHRLLRKGYAERVGAGAPVYLA AVLEYLTA EIL
ELAGNAARDNKKTRIIIPRHLQLAIRNDEELNKLLGGVTIAQGGVLPNIQAVLLPKKTSATVGP
K
APSGGKKATQASQEY