

## Recombinant Histone H2A.X

**Cat. No.** C23010005

**Source:** E. coli

**Lot #:** 001

**Size:** 100 µg/ 100 µl

**Concentration:** 1 µg/µl

**Specificity:** Human

**Purity:** Purified using FPLC, >98% purity as determined by SDS-PAGE

**Storage buffer:** 20 mM sodium phosphate pH 7.0, 0.3 M NaCl, 1mM EDTA, 0.5 mM PMSF and 1 mM DTT.

**Storage:** Store at -80°C; guaranteed stable for 2 years from date of receipt when stored properly.

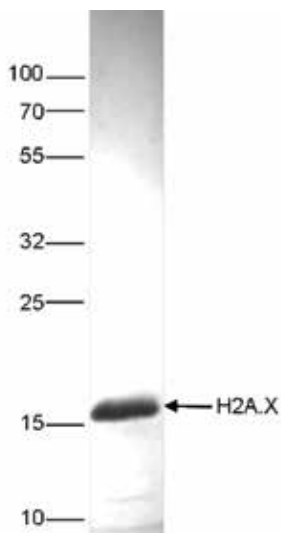
**Precautions:** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Description:** Full length recombinant histone H2A.X, produced in E. coli.

### Protein description

Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble and are wrapped by 146 base pairs of DNA to form one octameric nucleosome. Histone tails undergo numerous post-translational modifications, which either directly or indirectly alter chromatin structure to facilitate transcriptional activation or repression or other nuclear processes. The histone variant H2AX replaces conventional H2A in a subset of nucleosomes. H2AX plays a central role in DNA repair and chromosomal stability and is required for cell cycle progression arrest in response to low doses of ionizing radiation and for efficient repair of DNA double strand breaks.

### Quality control



**Figure 1.**

SDS page of the Recombinant Histone H2A.X. The position of the protein of interest is indicated on the right; the marker (in kDa) is shown on the left.

#### Diagenode sa. BELGIUM | EUROPE

LIEGE SCIENCE PARK  
Rue Bois Saint-Jean, 3  
4102 Seraing (Ougrée) - Belgium  
Tel: +32 4 364 20 50  
Fax: +32 4 364 20 51  
orders@diagenode.com  
info@diagenode.com

#### Diagenode Inc. USA | NORTH AMERICA

400 Morris Avenue, Suite 101  
Denville, NJ 07834 - USA  
Tel: +1 862 209-4680  
Fax: +1 862 209-4681  
orders.na@diagenode.com  
info.na@diagenode.com

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