# Recombinant Mouse Cenpx Protein, Myc/DDK-tagged

**Cat. No.** Cenpx-2110M **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Purified recombinant protein of mouse full-length centromere protein X (Cenpx), with C-terminal MYC/DDK tag, expressed in HEK293T cells. |
| **Species** | Mouse |
| **Source** | HEK293 |
| **Description** | DNA-binding component of the Fanconi anemia (FA) core complex. Required for the normal activation of the FA pathway, leading to monoubiquitination of the FANCI-FANCD2 complex in response to DNA damage, cellular resistance to DNA cross-linking drugs, and prevention of chromosomal breakage. In complex with CENPS (MHF heterodimer), crucial cofactor for FANCM in both binding and ATP-dependent remodeling of DNA. Stabilizes FANCM. In complex with CENPS and FANCM (but not other FANC proteins), rapidly recruited to blocked forks and promotes gene conversion at blocked replication forks. In complex with CENPS, CENPT and CENPW (CENP-T-W-S-X heterotetramer), involved in the formation of a functional kinetochore outer plate, which is essential for kinetochore-microtubule attachment and faithful mitotic progression. As a component of MHF and CENP-T-W-S-X complexes, binds DNA and bends it to form a nucleosome-like structure. DNA-binding function is fulfilled in the presence of CENPS, with the following preference for DNA substates: Holliday junction > double-stranded > splay arm > single-stranded. Does not bind DNA on its own. |
| **Molecular Mass** | 9.4 kDa |

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| **Purity** | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| **Stability** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **Storage** | Store at -80 centigrade after receiving vials. |
| **Concentration** | >50 μg/mL as determined by microplate BCA method |
| **Storage Buffer** | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol. |

## GENE INFORMATION

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| **Gene Name** | Cenpx centromere protein X [ Mus musculus (house mouse) ] |
| **Official Symbol** | Cenpx |
| **Synonyms** | Cenpx; centromere protein X; Str; Stra13; centromere protein X; CENP-X; FANCM-interacting histone fold protein 2; Fanconi anemia-associated polypeptide of 10 kDa; immediate-early-response protein D9; retinoic acid-inducible gene D9 protein; stimulated by retinoic acid 13; stimulated by retinoic acid gene 13 protein homolog |
| **Gene ID** | 20892 |
| **mRNA Refseq** | NM_016665 |
| **Protein Refseq** | NP_057874 |
| **UniProt ID** | Q8C4X1 |

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