
Mus81 Antibody Blocking Peptide

Catalog Number: bs-19109P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Together, DNA repair and checkpoint responses ensure the integrity of the genome.

Coordination of cell cycle checkpoints and DNA repair are especially important following genotoxic radiation or chemotherapy, during which unusually high loads of DNA damage are sustained.

MUS81 encodes a helix-hairpin-helix protein involved in the response to UV- and methylation-induced DNA damage in *Saccharomyces cerevisiae* (1). Mus81 is important for replicational stress tolerance in both budding and fission yeast.

Specifically, Mus81 associates with Eme1 to form an endonuclease that can process stalled replication forks before they have regressed to form a Holliday junction.

Mus81 associated endonuclease resolves Holliday junctions into linear duplexes by cutting across the junction exclusively on strands of like polarity.

In addition, Mus81 protein abundance increases in cells following exposure to agents that block DNA replication.

Mus81 is involved in the recruitment of Cds1 to aberrant DNA structures where Cds1 modulates the activity of damage tolerance enzymes. The gene encoding human MUS81 maps to chromosome 11q13 and encodes a 551 amino acid protein.