

Anti-RAD21
(Double-strand-break repair protein rad21 homolog)
Polyclonal Antibody

Cat. #: 60B719

Description:

RAD21 (Double-strand-break repair protein rad21 homolog) is a cleavable component of the cohesin complex, and is involved in chromosome cohesion during cell cycle, in DNA repair, and in apoptosis. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At metaphase-anaphase transition, this protein is cleaved by ESPL1 and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. RAD21 also plays a role in apoptosis, via its cleavage by caspase-3/CASP3 or caspase-7/CASP7 during early steps of apoptosis: the C-terminal 64 kDa cleavage product may act as a nuclear signal to initiate cytoplasmic events involved in the apoptotic pathway. Cohesin complexes are composed of the SMC1 (SMC1L1 or SMC1L2) and SMC3 heterodimer attached via their hinge domain, RAD21 which link them, and one STAG protein (STAG1, STAG2 or STAG3), which interacts with RAD21.

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to C-terminal residues of human RAD21 (Double-strand-break repair protein rad21 homolog)

References

- Sadano,H., et al, Biochem. Biophys. Res. Commun. 267 (1), 418-422 (2000)
Gregson,H.C., et al, J. Biol. Chem. 276 (50), 47575-47582 (2001)
Pati,D., et al, Mol. Cell. Biol. 22 (23), 8267-8277 (2002)
Hoque,M.T. and Ishikawa,F., J. Biol. Chem. 276 (7), 5059-5067 (2001)
Hauf,S., et al, Science 293 (5533), 1320-1323 (2001)
Chen,F., et al, J. Biol. Chem. 277 (19), 16775-16781 (2002)

Clone Number:

Isotype:

Species: human, mouse, rat

Storage and Stability: at -20oC

Storage buffer:

This antibody is stored in PBS, 0.01% sodium azide and 50% glycerol.

Preparation:

Purified by antigen-specific affinity chromatography.

Applications :

ELISA

Western Blotting (1µg/ml for 2hrs)