

Anti-DMC1 [2H12/4] Standard Size Ab01311-1.6

This is a Fab fragment with a his-tag. Developed in partnership with Ximbio (www.ximbio.com).

This reformatted mouse antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse Fab fragment, His-Tagged, Kappa

Clone Number: 2H12/4

Alternative Name(s) of Target: Meiotic recombination protein DMC1/LIM15 homolog; DMC1H; LIM15; MGC150473; MGC150472; HsLim15; DMC1 homologue; disrupted meiotic cDNA1; hDMC1

UniProt Accession Number of Target Protein: Q14565

Published Application(s): IP, WB, IF, IHC

Published Species Reactivity: Cow, Rat, Human, Mouse

Immunogen: This antibody was raised against human DMC1 protein (expressed originally as a 6xHis fusion in *E. coli*).

Specificity: This antibody is specific for DMC1 and does not cross-react with the related protein Rad51. DMC1 is a RecA/RAD51 homologue which is specific for meiosis and critical for meiotic recombination in Eukaryota.

Application Notes: IF: 2H12/4 anti-DMC1 antibody was used to visualise DMC1 on chromatin in I-L2-NS endopolyploid tumour cells in experiments investigating the role of another protein - REC8 in chromosome segregation after radiation (Erenpreisa et al., 2009). This antibody was also utilised to stain paraffin-embedded cervical cancer tissue samples against DMC1 (Ianzini et al., 2009). IF: Hopkins et al. (2014) successfully used this antibody to stain chromatin spreads from purified testicular germ cells of Stag3+/- and Stag3-/- mice for DMC1 in the studies on the role of Stag3. IF: Another group also used this antibody for the immunofluorescence staining of spermatocyte chromosome spreads against DMC1 in a study analysing proteins involved in telomeres' attachment to the nuclear envelope (Wang et al., 2019).

Antibody First Published in: Erenpreisa et al. The role of meiotic cohesin REC8 in chromosome segregation in γ irradiation-induced endopolyploid tumour cells *Exp Cell Res.* 2009 Sep 10;315(15):2593-603. doi: 10.1016/j.yexcr.2009.05.011. Epub 2009 May 20. [PMID:19463812](#)

Note on publication: This article describes the earliest use of this anti-DMC1 antibody. It was utilised to visualise DMC1 protein on chromosomes of endopolyploid tumour cells in experiments investigating the role of another protein - REC8 in chromosome segregation after radiation.

Product Form

Size: 100 µg Purified antibody.

Purification: Purified by Immobilized Metal Affinity Chromatography

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.