

Anti-Rad18 (mouse) antibody, rabbit polyclonal

Product code	70-025
Size	100 µg
Storage	-20°C
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from rabbit antiserum.
Immunogen	GST-fusion protein containing 100 carboxyl terminal amino acids of mouse Rad18
Isotype	Rabbit IgG
Reactivity	Mouse Rad18 protein. Not reactive to human Rad18. Not tested in other species.
Special notes	N/A
Application	1. Western blotting (1,000 fold dilution). 2. Immuno-precipitation (200~500 dilution)) 3. Indirect immuno-fluorescence staining (assay dependent) 4. Immuno-histochemistry (100~300 fold dilution)
Background	The Rad6 (UBE2B)-Rad18 pair of genes plays a critical role in post-replication repair of damaged DNA. Rad6 protein functions as an E2 enzyme and Rad18 (509 aa, 57.4 kDa) as a ubiquitine ligase (E3) which ubiquitinates PCNA. Rad18 recruits translesion DNA polymerases to damaged DNA.
Data Link	UniProtKB/Swiss-Prot Q9QXK2 Mouse Rad18, Gene ID 16098139 Mouse Rad18
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 70-025 Anti-Rad18 (mouse) antibody, rabbit polyclonal

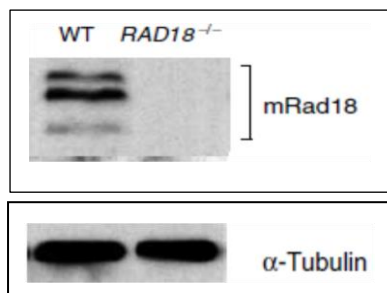


Fig.1 Identification of mouse Rad18 protein in ES cells by Western blot with anti-mRad18 antibody.

WT; Lysate of wild-type mouse ES cells

RAD18^{-/-}; Lysate of *Rad18* double knock-out mouse ES cells

Protein levels of α-tubulin in the lysates are shown as a control.

Three bands are absent in *RAD18* knock-out cells.

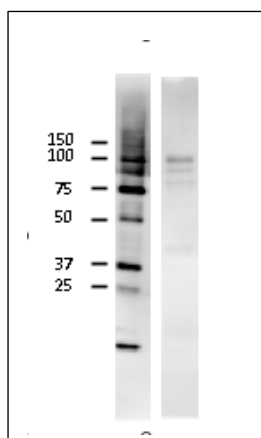


Fig.2 Identification of mouse Rad18 protein in NIH3T3 cells by western blot with the antibody.

Cell extract, 23 ug, was used. Anti-mouse Rad18 was used at 2,000 fold dilution. Similar to Fig.1, two extra bands (75~90 kDa) may represent modified products (ubiquitination, phosphorylation).

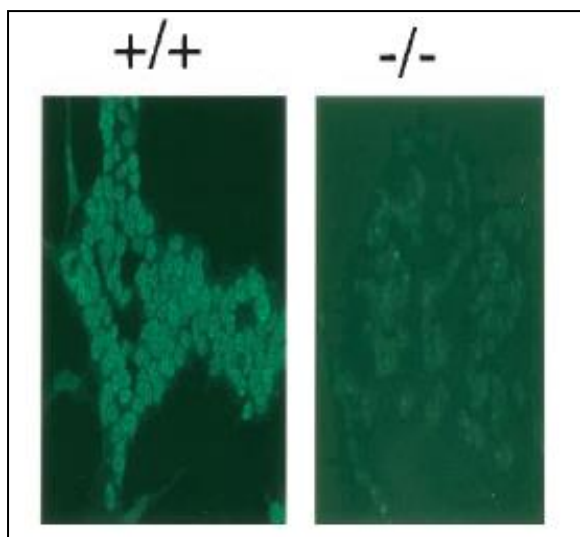


Fig.3. Immunofluorescence staining of Rad18 protein with anti-mRad18 antibody. Wild-type (+/+) and *RAD18*^{-/-} ES cells (-/-). Samples were prefixed 3.7% formaldehyde and fixed with 80% methanol. Anti-mRad18 antibody was used at 1/300 dilution. AS a second antibody, FITC conjugated anti-rabbit IgG was used.

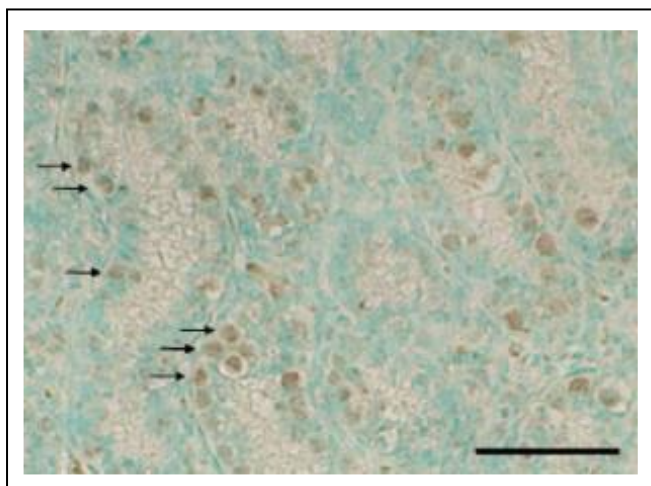


Fig.4. Detection of Rad18 in mouse testis.

Section of paraformaldehyde fixed mouse was stained with anti-mRad18 antibody. As a second antibody, peroxidase-conjugated anti-rabbit IgG donkey antibody was used. Signals were enhanced with TSA plus biotin system and detected by using DAB substrate.

Arrows indicate undifferentiated spermatogonia.

References: This product has been used in the following publications.

1. Tateishi S. et al. (2003) Enhanced genomic instability and defective postreplication repair in RAD18 knockout mouse embryonic stem cells. Mol Cell Biol 23:474-81. PubMed [12509447](#) WB, IF/IC
2. Watanabe K. et al. (2004) Rad18 guides poleta to replication stalling sites through physical interaction and PCNA monoubiquitination. EMBO J. 23:3886-96. PubMed [15359278](#) WB
3. Masuyama S. et al. (2005) Regulated expression and dynamic changes in subnuclear localization of mammalian Rad18 under normal and genotoxic conditions. Genes Cells. 10:753-62. PubMed [16098139](#) IHC
4. Sun J. et al. (2009) Rad18 is required for long-term maintenance of spermatogenesis in mouse testes. Mech Dev 126:173-83. PubMed [19068231](#) IHC, WB

Related Products

70-020 Anti-Rad6/UBE2A antibody, rabbit polyclonal

70-023 Anti-Rad18 (human) antibody, rabbit polyclonal