

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	<ol style="list-style-type: none"> 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

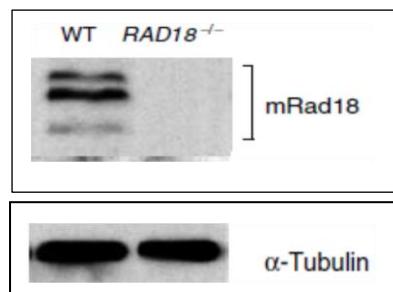


Fig.1 Identification of mouse Rad18 protein in ES cells by Western blot with anti-mRad18 antibody.
 WT; Lysate of wild-type mouse ES cells
RAD18^{-/-}; Lysate of *Rad18* double knock-out mouse ES cells
 Protein levels of α -tubulin in the lysates are shown as a control.
 Three bands are absent in *RAD18* knock-out cells.

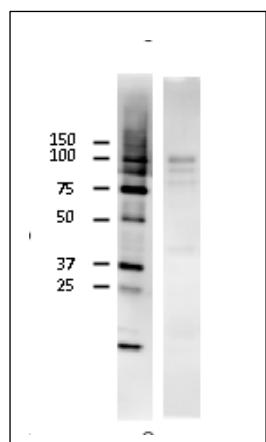


Fig.2 Identification of mouse Rad18 protein in NIH3T3 cells by western blot with the antibody.
 Cell extract, 23 ug, was used. Anti-mouse Rad18 was used at 2,000 fold dilution. Similar to Fig.1, two extra bands (75~90 kDa) may represent modified products (ubiquitination, phosphorylation).

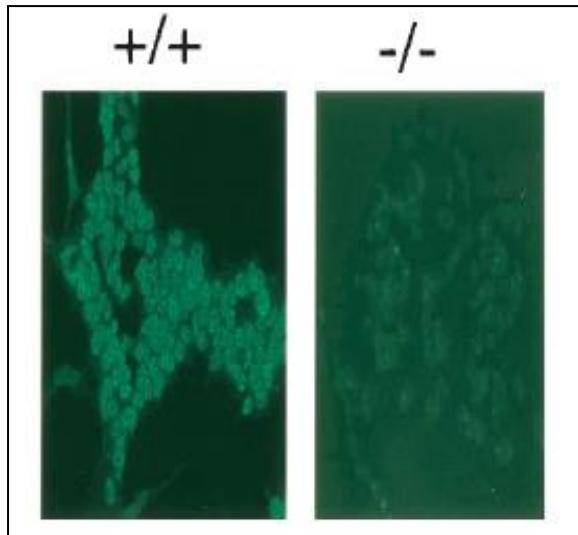


Fig.3. Immunofluorescence staining of Rad18 protein with anti-mRad18 antibody. Wild-type (+/+) and *RAD18*^{-/-} ES cells (-/-). Samples were prefixed 3.7% formaldehyde and fixed with 80% methanol. Anti-mRad18 antibody was used at 1/300 dilution. AS a second antibody, FITC conjugated anti-rabbit IgG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

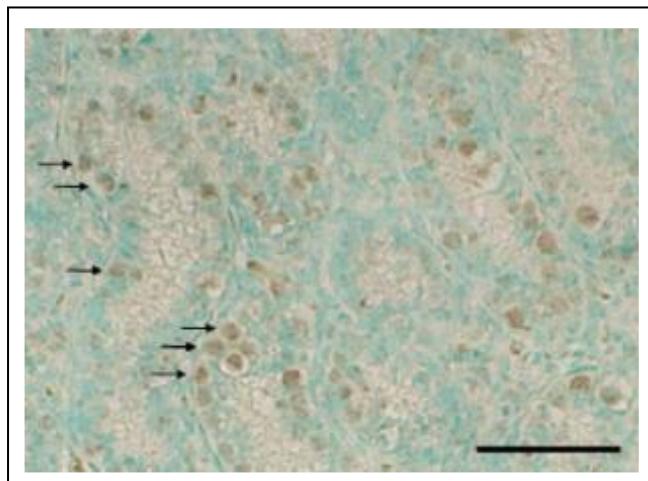


Fig.4. Detection of Rad18 in mouse testis.

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