

TR4/NR2C2 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 67	Source/Isotype: Rabbit	UniProt ID: #P49116	Entrez-Gene Id: 7182
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

TR4/NR2C2 Antibody recognizes endogenous levels of total TR4/NR2C2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile10 of human TR4/NR2C2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Testicular receptor 4 (TR4), also called TAK1 or NR2C2, is an orphan receptor in a distinct subclass of the steroid hormone nuclear receptor superfamily along with TR2 (1,2). TR4 forms heterodimers with TR2 and binds to DNA elements containing direct repeats (DRs) (3). TR4 plays a role in various processes, including neurogenesis, spermatogenesis, RNA metabolism, and protein translation (4-6). TR4 can interact with other hormone receptors such as AR and ER to influence protein-protein binding and target gene inactivation (7,8). High expression of TR4 correlates with prostate cancer metastasis and invasion through downstream targets such as CCL2 and Ezh2 (9-10). Expression of TR4 in other cancers such as NSCLC and testicular germ cell tumors has also been associated with poor prognosis (11-12).

Background References

1. Chang, C. et al. (1994) *Proc Natl Acad Sci U S A* 91, 6040-4.
2. Law, S.W. et al. (1994) *Gene Expr* 4, 77-84.
3. Lee, C.H. et al. (1998) *J Biol Chem* 273, 25209-15.
4. Young, W.J. et al. (1998) *J Biol Chem* 273, 20877-85.
5. Mu, X. et al. (2004) *Mol Cell Biol* 24, 5887-99.
6. O'Geen, H. et al. (2010) *BMC Genomics* 11, 689.
7. Shyr, C.R. et al. (2002) *J Biol Chem* 277, 14622-8.
8. Lee, Y.F. et al. (1999) *Proc Natl Acad Sci U S A* 96, 14724-9.
9. Ding, X. et al. (2015) *Int J Cancer* 136, 955-64.
10. Zhu, J. et al. (2015) *Mol Cancer Ther* 14, 1445-53.
11. Zhang, L. et al. (2015) *Lung Cancer* 89, 320-8.
12. Chen, Y. et al. (2018) *Cancer Sci* 109, 384-394.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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