MIS-R2 Antibody

#4518 Store at -20°C

☑ 100 µl
(10 Western mini-blots)

Cell Signaling TECHNOLOGY®

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New 12/08

Entrez-Gene ID #269
Swiss-Prot Acc. #Q16671

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Transfected	H, (Mk)	75-85 kDa	Rabbit**

Background: The type II receptor for Müllerian inhibiting substance (MIS), also known as the anti-Müllerian hormone receptor 2 (AMHR2), binds a hormone-ligand that directs the incomplete development of Müllerian ducts in male embryos (1,2). MIS-R2 is a single transmembrane serine/threonine kinase receptor of the TGF-β receptor family involved in the phosphorylation of shared type 1 receptors and Smad transcriptional regulators (3,4). MIS produced by the fetal testis promotes the regression of Müllerian ducts that would otherwise differentiate into the uterus and fallopian tubes in the male fetus (5). Corresponding MIS-R2 gene mutations can cause persistent Müllerian duct syndrome type 2 (PMDS-2), a form of male pseudohermaphroditism characterized by a failure of Müllerian duct regression (6). The presence of MIS-R2 is observed in ovarian cancer cell lines that respond positively to treatment with recombinant MIS, suggesting that both receptor and ligand may be important therapeutic tools (7).

Specificity/Sensitivity: MIS-R2 Antibody detects transfected levels of human MIS-R2 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to residues surrounding Leu315 of human MIS-R2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

(1) di Clemente, N. et al. (1994) *Mol Endocrinol* 8, 1006–20.

(2) Visser, J.A. et al. (1995) *Biochem Biophys Res Commun* 215, 1029-36.

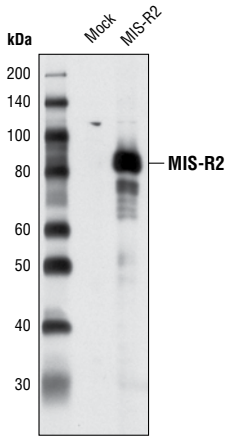
(3) Teixeira, J. et al. (1996) *Endocrinology* 137, 160–5.

(4) Gouédard, L. et al. (2000) *J Biol Chem* 275, 27973–8.

(5) Jamin, S.P. et al. (2002) *Nat Genet* 32, 408–10.

(6) Imbeaud, S. et al. (1996) *Hum Mol Genet* 5, 1269–77.

(7) Masiakos, P.T. et al. (1999) *Clin Cancer Res* 5, 3488–99.



Western blot analysis of extracts from COS cells, mock transfected or transfected with human myc-tagged MIS-R2, using MIS-R2 Antibody (construct kindly provided by Drs. David MacLaughlin and Patricia Donahoe, Massachusetts General Hospital).

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Companion Products:

Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071

Anti-rabbit IgG, HRP-linked Antibody #7074

Prestained Protein Marker, Broad Range (Premixed Format) #7720

Biotinylated Protein Ladder Detection Pack #7727

20X LumiGLO® Reagent and 20X Peroxide #7003

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.