

#11826 Store at -20°C

## FKBP4 Antibody

Cell Signaling  
TECHNOLOGY®Orders: 877-616-CELL (2355)  
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Hm Mk	Endogenous	56	Rabbit	#Q02790	2288

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	FKBP4 Antibody recognizes endogenous levels of total FKBP4 protein. This antibody does not cross-react with other FKBP proteins.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Met440 of human FKBP4 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	FKBP4 (also known as FKBP52) is a member of the immunophilin protein family. FKBP4 does not demonstrate appreciable immunosuppressant activity typical of this family, despite its ability to bind the immunosuppressants FK506 and rapamycin (1,2). While FKBP4 plays an important role in immunoregulatory gene expression in B and T lymphocytes, its role in regulating steroid hormone receptor signaling and cytoskeletal dynamics is garnering significant interest. FKBP4 contains two peptidyl-prolyl cis-trans isomerase (PPIase) domains, the first of which is implicated in steroid receptor signaling while the second interacts with tubulin and other cytoskeletal components. The maturation of cytoplasmic steroid hormone receptors into a functional conformation requires multiple chaperone and co-chaperone components, including HSP90, p23, and FKBP4 (3,4). FKBP4 interacts with HSP90 to facilitate the folding of androgen, glucocorticoid, and progesterone steroid hormone receptors. Indeed, the functionality of these receptors is impaired in the absence of FKBP4, and research studies have found that null mice demonstrate signs of androgen insensitivity syndrome (5). In addition, FKBP4, which is expressed at high levels in the brain, interacts with hyperphosphorylated Tau and antagonizes Tau's ability to promote microtubule polymerization (6). FKBP4 can also suppress amyloid β toxicity in Drosophila by processing APP (Alzheimer's Amyloid Precursor Protein) to unfold aggregates (7).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Peattie, D.A. et al. (1992) <i>Proc Natl Acad Sci U S A</i> 89, 10974-8.</li> <li>2. Wu, B. et al. (2004) <i>Proc Natl Acad Sci U S A</i> 101, 8348-53.</li> <li>3. De Leon, J.T. et al. (2011) <i>Proc Natl Acad Sci U S A</i> 108, 11878-83.</li> <li>4. Ebong, I.O. et al. (2011) <i>Proc Natl Acad Sci U S A</i> 108, 17939-44.</li> <li>5. Sivils, J.C. et al. (2011) <i>Curr Opin Pharmacol</i> 11, 314-9.</li> <li>6. Chambraud, B. et al. (2010) <i>Proc Natl Acad Sci U S A</i> 107, 2658-63.</li> <li>7. Sanokawa-Akakura, R. et al. (2010) <i>PLoS One</i> 5, e8626.</li> </ol>	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Western Blot Buffer</b>	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.	
<b>Applications Key</b>	<b>WB:</b> Western Blotting	
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected	

**Trademarks and Patents**

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](https://cellsignal.com/trademarks) for more information.

**Limited Uses**

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.