

#64407 Store at -20°C

GPR37 (D4C8H) Rabbit mAb**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/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	40-250	Rabbit IgG	#O15354	2861

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

GPR37 (D4C8H) Rabbit mAb recognizes endogenous levels of total GPR37 protein. This product does not cross-react with GPR37L1.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu590 of human GPR37 protein.

Background

GPR37 is a G protein-coupled receptor (GPCR) that was originally identified as an orphan receptor highly expressed in the brain and testis (1). It shares significant homology with the receptors of endothelin and bombesin peptides (1). Neuropeptide head activator from the invertebrate Hydra was identified as a high-affinity ligand of GPR37 (2), however, to date, no mammalian ortholog of this peptide that could represent an endogenous GPR37 ligand has been identified. Recently, GPR37 was deorphanized as the receptor for the endogenous peptides prosaptide and prosaposin (3). GPR37 is a substrate of the E3 ubiquitin ligase parkin, and is often referred to as "parkin-associated endothelin-like receptor," or "Pael-R" (4). GPR37 has been implicated in the pathogenesis of Parkinson's Disease as it aggregates in the substantia nigra of some PD patients (4,5). Interestingly, prosaposin exerts neuroprotective, neurotrophic, and gliotrophic actions (6), and GPR37 was identified as a negative regulator of oligodendrocyte differentiation and myelination (7), suggesting that it could represent a potential target for demyelinating pathologies.

Background References

1. Marazziti, D. et al. (1998) *Genomics* 53, 315-24.
2. Rezgaoui, M. et al. (2006) *J Cell Sci* 119, 542-9.
3. Meyer, R.C. et al. (2013) *Proc Natl Acad Sci U S A* 110, 9529-34.
4. Imai, Y. et al. (2001) *Cell* 105, 891-902.
5. Murakami, T. et al. (2004) *Ann Neurol* 55, 439-42.
6. Misasi, R. et al. (2009) *Cent Nerv Syst Agents Med Chem* 9, 119-31.
7. Yang, H.J. et al. (2016) *Nat Commun* 7, 10884.

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**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
 XP is a registered trademark of Cell Signaling Technology, Inc.
 All other trademarks are the property of their respective owners. Visit 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.