

**GPR37 (D4C8H) Rabbit mAb**

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<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 40-250	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #O15354	<b>Entrez-Gene Id:</b> 2861
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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, 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**

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

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

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