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GPR37 Antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15109

Product Information

Application	WB
Primary Accession	O15354
Other Accession	NM_005302, NP_005293
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	67114

Additional Information

Gene ID	2861
Alias Symbol	EDNRBL, PAELR, hET(B)R-LP
Other Names	Prosaposin receptor GPR37, Endothelin B receptor-like protein 1, ETBR-LP-1, G-protein coupled receptor 37, Parkin-associated endothelin receptor-like receptor, PAELR, GPR37
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-GPR37 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	GPR37 Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPR37
Function	G protein-coupled receptor that plays a role in several physiological pathways such as resolution of inflammatory pain and oligodendrocyte differentiation (By similarity). Acts as a receptor for several ligands including prosaposin, osteocalcin or neuroprotectin D1. Ligand binding induces endocytosis, followed by an ERK phosphorylation cascade (PubMed:11439185, PubMed:23690594). Acts as a receptor for osteocalcin (OCN) to regulate oligodendrocyte differentiation and central nervous system myelination. Mechanistically, plays a negative role in oligodendrocyte differentiation and myelination during development via activation of the ERK1/2 signaling

	pathway. Therefore, regulates the stability of myelin or resistance of myelin itself to demyelination. Upon activation by neuroprotectin D1 (NPD1), promotes the activation of phagocytosis in macrophages as well as the shift in cytokine release toward an anti-inflammatory profile, and thus helps to reverse inflammatory pain. In addition, the increased macrophage phagocytosis mediates protection against sepsis upon pathogen infection. Additionally, extracellular vesicles derived from efferocyte express prosaposin, which binds to macrophage GPR37 to increase expression of the efferocytosis receptor TIM4 via an ERK-AP1-dependent signaling axis, leading to increased macrophage efferocytosis efficiency and accelerated resolution of inflammation (By similarity). May also act as a maturation factor of LRP6, protecting LRP6 from the endoplasmic reticulum (ER)-associated protein degradation (ERAD) and thereby promoting the Wnt/beta-catenin signaling pathway (PubMed:28341812).
Cellular Location	Cell projection, dendrite. Synapse Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Expressed in brain and spinal cord, and at lower levels in testis, placenta and liver, but no detectable expression observed in any other tissue. When overexpressed in cells, tends to become insoluble and unfolded. Accumulation of the unfolded protein may lead to dopaminergic neuronal death in juvenile Parkinson disease (PDJ).

References

Marazziti D.,et al.Genomics 45:68-77(1997).
Donohue P.J.,et al.Brain Res. Mol. Brain Res. 54:152-160(1998).
Zeng Z.,et al.Biochem. Biophys. Res. Commun. 233:559-567(1997).
Imai Y.,et al.Cell 105:891-902(2001).
Hillier L.W.,et al.Nature 424:157-164(2003).

Images



WB Suggested Anti-GPR37 Antibody Titration: 1.0 µg/ml
Positive Control: Fetal Heart

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.