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PAEL Receptor / GPR37 Antibody (N-Terminus)

Rabbit Polyclonal Antibody

Catalog # ALS10039

Specification

PAEL Receptor / GPR37 Antibody (N-Terminus) - Product Information

Application	**IHC-P**
Primary Accession	O15354
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**67kDa KDa**
Dilution	**IHC-P~~N/A**

PAEL Receptor / GPR37 Antibody (N-Terminus) - Additional Information

Gene ID 2861

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

Target/Specificity
Human GPR37. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
PAEL Receptor / GPR37 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

PAEL Receptor / GPR37 Antibody (N-Terminus) - 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).

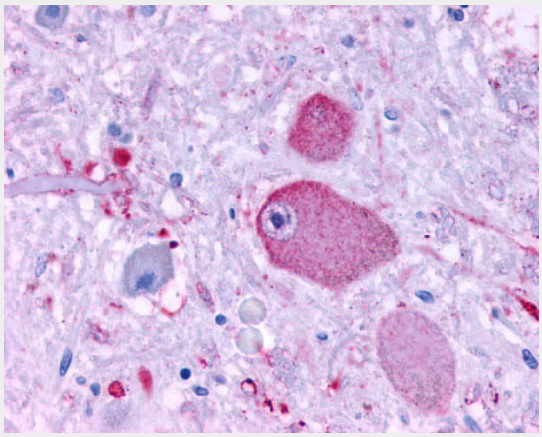
Volume
50 µl

PAEL Receptor / GPR37 Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PAEL Receptor / GPR37 Antibody (N-Terminus) - Images



Anti-GPR37 antibody ALS10039 IHC of human brain, neurons and glia.

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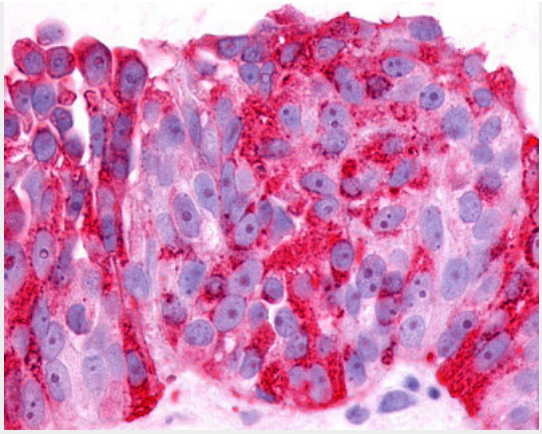
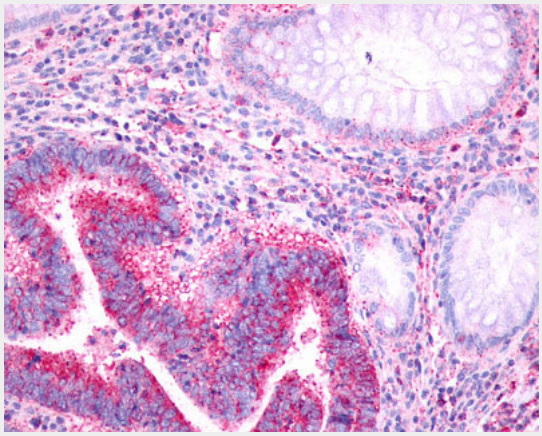


Anti-PAEL Receptor / GPR37 antibody IHC of human Ovary, Carcinoma.



Anti-PAEL Receptor / GPR37 antibody IHC of human Colon, Carcinoma.

PAEL Receptor / GPR37 Antibody (N-Terminus) - Background

Receptor for the neuroprotective and glioprotective factor prosaposin. Ligand binding induces endocytosis, followed by an ERK phosphorylation cascade.

PAEL Receptor / GPR37 Antibody (N-Terminus) - 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).