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OPRS1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2747c

Specification

OPRS1 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q99720
Other Accession	Q58DH7
Reactivity	**Human, Mouse**
Predicted	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**25128**
Antigen Region	**118-147**

OPRS1 Antibody (Center) - Additional Information

Gene ID 10280

Other Names
Sigma non-opioid intracellular receptor 1, Aging-associated gene 8 protein, SR31747-binding protein, SR-BP, Sigma 1-type opioid receptor, SIG-1R, Sigma1-receptor, Sigma1R, hSigmaR1, SIGMAR1, OPRS1, SRBP

Target/Specificity
This OPRS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 118-147 amino acids from the Central region of human OPRS1.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
OPRS1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

OPRS1 Antibody (Center) - Protein Information

Name SIGMAR1

Synonyms OPRS1, SRBP

Function Functions in lipid transport from the endoplasmic reticulum and is involved in a wide array of cellular functions probably through regulation of the biogenesis of lipid microdomains at the plasma membrane. Involved in the regulation of different receptors it plays a role in BDNF signaling and EGF signaling. Also regulates ion channels like the potassium channel and could modulate neurotransmitter release. Plays a role in calcium signaling through modulation together with ANK2 of the ITP3R-dependent calcium efflux at the endoplasmic reticulum. Plays a role in several other cell functions including proliferation, survival and death. Originally identified for its ability to bind various psychoactive drugs it is involved in learning processes, memory and mood alteration (PubMed:16472803, PubMed:9341151). Necessary for proper mitochondrial axonal transport in motor neurons, in particular the retrograde movement of mitochondria. Plays a role in protecting cells against oxidative stress-induced cell death via its interaction with RNF112 (By similarity).

Cellular Location
Nucleus inner membrane. Nucleus outer membrane. Nucleus envelope. Cytoplasmic vesicle. Endoplasmic reticulum membrane. Membrane; Single-pass membrane protein. Lipid droplet {ECO:0000250|UniProtKB:O55242}. Cell junction. Cell membrane. Cell projection, growth cone Postsynaptic density membrane Note=During interphase, detected at the inner and outer nuclear membrane and the endoplasmic reticulum. Detected on cytoplasmic vesicles during mitosis (PubMed:10406945). Targeted to lipid droplets, cholesterol and galactosylceramide-enriched domains of the endoplasmic reticulum. Accumulation at the endoplasmic reticulum is prominent in alpha-motor neurons of patients with amyotrophic lateral sclerosis (PubMed:23314020). Enriched at cell-cell communication regions, growth cone and postsynaptic structures. Localization is modulated by ligand- binding. In motor neurons it is enriched at cholinergic postsynaptic densities (By similarity). {ECO:0000250|UniProtKB:O55242, ECO:0000269|PubMed:10406945, ECO:0000269|PubMed:23314020}

Tissue Location
Widely expressed with higher expression in liver, colon, prostate, placenta, small intestine, heart and pancreas Expressed in the retina by retinal pigment epithelial cells. Expressed in alpha-motor neurons (PubMed:23314020).

OPRS1 Antibody (Center) - 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

OPRS1 Antibody (Center) - Images

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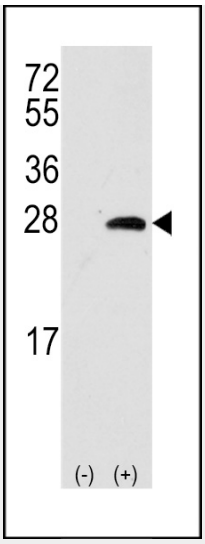
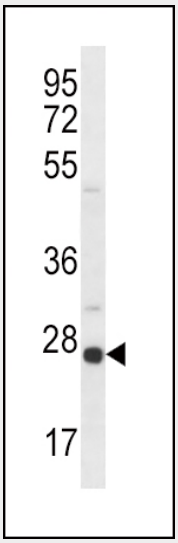


Western blot analysis of OPRS1 (arrow) using rabbit polyclonal OPRS1 Antibody (Center) (Cat.#AP2747c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the OPRS1 gene (Lane 2) (Origene Technologies).



OPRS1 Antibody (Center) (Cat.#AP2747c) western blot analysis in mouse brain tissue lysates (35ug/lane).This demonstrates the OPRS1 antibody detected the OPRS1 protein (arrow).

OPRS1 Antibody (Center) - Background

OPRS1 is a receptor protein that interacts with a variety of psychotomimetic drugs, including cocaine and amphetamines. The receptor is believed to play an important role in the cellular functions of various tissues associated with the endocrine, immune, and nervous systems.

OPRS1 Antibody (Center) - References

Cobos,E.J.,J. Neurochem. 102 (3), 812-825 (2007)
Maurice,T., Pharmacol. Biochem. Behav. 84 (4), 581-597 (2006)
Lee,I.T.,Eur. J. Pharmacol. 578 (2-3), 123-136 (2008)