10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

OPN5 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50765

Product Information

Application	WB, IF
Primary Accession	Q6U736
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Calculated MW	39727

Additional Information

Gene ID	221391
Other Names	Opsin-5, G-protein coupled receptor 136, G-protein coupled receptor PGR12, Neuropsin, Transmembrane protein 13, OPN5, GPR136, PGR12, TMEM13
Dilution	WB~~ 1:1000 IF~~1:100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

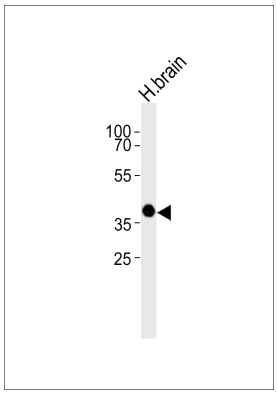
Name	OPN5
Synonyms	GPR136, PGR12, TMEM13
Function	G-protein coupled receptor which selectively activates G(i) type G proteins via ultraviolet A (UVA) light-mediated activation in the retina (By similarity). Preferentially binds the chromophore 11-cis retinal and is a bistable protein that displays emission peaks at 380 nm (UVA light) and 470 nm (blue light) (PubMed:22043319). Required for the light-response in the inner plexiform layer, and contributes to the regulation of the light-response in the nerve fiber layer, via phosphorylated DAT/SLC6A3 dopamine uptake (By similarity). Involved in local corneal and retinal circadian rhythm photoentrainment via modulation of the UVA light-induced phase-shift of the retina clock (By similarity). Acts as a circadian photoreceptor in the outer ear, via modulation of circadian clock-gene expression in response to violet light during the light-to-dark transition phase and night phase of the circadian cycle (By similarity). Required in the retina to negatively regulate hyaloid vessel regression during postnatal development via light-dependent OPN5-SLC32A1-DRD2-VEGFR2 signaling (By similarity). Involved in the

	light-dependent regulation of retina and vitreous compartment dopamine levels (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected in brain and retina and cell lines derived from neural retina.

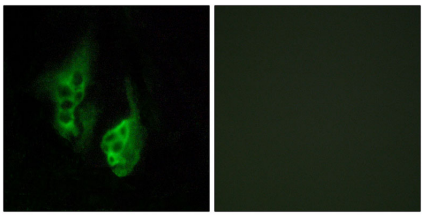
References

Tarttelin E.E.,et al.FEBS Lett. 554:410-416(2003).
Fredriksson R.,et al.FEBS Lett. 554:381-388(2003).
Vassilatis D.K.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:4903-4908(2003).
Mungall A.J.,et al.Nature 425:805-811(2003).

Images



Western blot analysis of lysate from human brain tissue lysate,using OPN5 Antibody(AP50765). AP50765 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Immunofluorescence analysis of HeLa cells, using OPN5 antibody.