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Rabbit Anti-OA1 antibody

SL11791R

Product Name:	OA1
Chinese Name:	眼部白化病相关蛋白OA1/蛋白偶联受体143抗体
Alias:	ALBINISM OCULAR TYPE I; G protein coupled receptor 143; G-protein coupled receptor 143; GP143_HUMAN; GPR143; MOA1; NETTLESHIP FALLS TYPE OCULAR ALBINISM; Ocular albinism type 1 protein; Ocular albinism type 1 protein homolog; Ocular albinism1 Nettleship Falls type.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	44kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human OA1:201-300/404
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	G protein-coupled receptors (GPRs or GPCRs), are members of the largest protein family and play a role in many different stimulus-response pathways. G-protein coupled receptors mediate extracellular signals into intracellular signals (G-protein activation). They respond to a great variety of signaling molecules, including hormones,

	neurotransmitters and other proteins and peptides. GPR143, also designated ocular albinism type 1 protein (OA1), is detected exclusively in pigment cells. OA1, which is a multi-pass membrane protein, is a melanosomal protein expressed primarily in pigment cells. Defects in the gene encoding for OA1 cause ocular albinism, an X-linked disorder mainly characterized by retinal hypopigmentation and visual impairment. **Function:** Receptor for tyrosine, L-DOPA and dopamine. After binding to L-DOPA, stimulates Ca(2+) influx into the cytoplasm, increases secretion of the neurotrophic factor SERPINF1 and relocalizes beta arrestin at the plasma membrane; this ligand-dependent signaling occurs through a G(q)-mediated pathway in melanocytic cells. Its activity is mediated by G proteins which activate the phosphoinositide signaling pathway. Plays also a role as an intracellular G protein-coupled receptor involved in melanosome biogenesis, organization and transport. **Subunit:** Interacts with heterotrimeric G(i) proteins. Interacts with ARRB1 and ARRB2. Interacts with MLANA. **Subcellular Location:** Golgi apparatus. Melanosome membrane. Lysosome membrane. Apical cell membrane. Distributed throughout the endo-melanosomal system but most of endogenous protein is localized in unpigmented stage II melanosomes. Its expression on the apical cell membrane is sensitive to tyrosine. **Tissue Specificity:** Expressed at high levels in the retina, including the retinal pigment epithelium (RPE), and in melanocytes. Weak expression is observed in brain and adrenal gland. **Post-translational modifications:** Glycosylated. Phosphorylated. **DISEASE:** Defects in GPR143 are the cause of albinism ocular type 1 (OA1) [MIM:300500]; also known as Nettleship-Falls type ocular albinism. Form of albinism affecting only the eye. Pigment of the hair and skin is normal or only slightly diluted. Eyes may be severely affected with photophobia and reduced visual acuity. Nystagmus or strabismus are often associated. The irides and fundus are depigmented. Defects in GPR143 are the cause of Nystagmus congenital X-linked type 6 (NYS6) [MIM:300814]. It is a condition defined as conjugated, spontaneous and involuntary ocular oscillations that appear at birth or during the first three months of life. Other associated features may include mildly decreased visual acuity, strabismus, astigmatism, and occasionally head nodding. **Similarity:**

	Belongs to the G-protein coupled receptor OA family. **SWISS:** P51810 **Gene ID:** 4935 **Database links:** Entrez Gene: 4935 Human Entrez Gene: 18241 Mouse Entrez Gene: 302619 Rat Omim: 300500 Human SwissProt: P51810 Human SwissProt: P70259 Mouse Unigene: 74124 Human Unigene: 5157 Mouse Unigene: 141649 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.