

PSGR Rabbit pAb

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Product Information

Application WB, IHC-P, IHC-F, IF, E

Primary Accession Q9H255

Reactivity Rat, Mouse, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 35493
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human PSGR

Epitope Specificity 151-250/320

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Cell membrane; Multi-pass membrane protein.

SIMILARITY Belongs to the G-protein coupled receptor 1 family.

Important NoteThis product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions Olfactory receptors interact with odorant molecules in the nose, to initiate a

neuronal response that triggers the perception of a smell. The olfactory receptor proteins are members of a large family of G-protein-coupled receptors (GPCR) arising from single coding-exon genes. Olfactory receptors share a 7-transmembrane domain structure with many neurotransmitter and

hormone receptors and are responsible for the recognition and G

protein-mediated transduction of odorant signals. The olfactory receptor gene

family is the largest in the genome. The nomenclature assigned to the olfactory receptor genes and proteins for this organism is independent of

other organisms. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID 81285

Other Names Olfactory receptor 51E2, HPRAJ, Olfactory receptor OR11-16, Prostate-specific

G-protein coupled receptor, OR51E2 (HGNC:15195)

Target/Specificity Exclusively expressed in the prostate. Up-regulated in prostate cancers.

Dilution WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-

500,ELISA=1:5000-10000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

Protein Information

Name OR51E2 (<u>HGNC:15195</u>)

Function Olfactory receptor (PubMed: <u>27226631</u>, PubMed:<u>29249973</u>). Activated by the

odorant, beta-ionone, a synthetic terpenoid (PubMed:<u>19389702</u>, PubMed:<u>27226631</u>, PubMed:<u>29249973</u>). The activity of this receptor is probably mediated by G-proteins leading to the elevation of intracellular Ca(2+), cAMP and activation of the protein kinases PKA and MAPK3/MAPK1 (PubMed:<u>27226631</u>, PubMed:<u>29249973</u>). Stimulation of OR51E2 by

beta-ionone affects melanocyte proliferation, differentiation, and melanogenesis (PubMed:27226631). Activation of OR51E2 by beta-ionone increases proliferation and migration of primary retinal pigment epithelial (RPE) cells (PubMed:29249973). Activated also by the short-chain fatty acids (SCFA) acetate and propionate. In response to SCFA, may positively regulate renin secretion and increase blood pressure (PubMed:23401498). May also be activated by steroid hormones and regulate cell proliferation

(PubMed: 19389702). Activated by L-lactate in glomus cells (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein. Early endosome membrane;

Multi-pass membrane protein

Tissue Location Highly expressed in the prostate (PubMed:11707321). Also expressed in

spleen, liver, olfactory epithelium, retinal pigment epithelium and medulla oblongata (PubMed:11707321, PubMed:16491480, PubMed:29249973). In the retinal pigment epithelium expression is restricted to the pigment cells and choroid (at protein level) (PubMed:29249973). Expressed in epidermal

melanocytes (at protein level) (PubMed:27226631).

Background

Olfactory receptors interact with odorant molecules in the nose, to initiate a neuronal response that triggers the perception of a smell. The olfactory receptor proteins are members of a large family of G-protein-coupled receptors (GPCR) arising from single coding-exon genes. Olfactory receptors share a 7-transmembrane domain structure with many neurotransmitter and hormone receptors and are responsible for the recognition and G protein-mediated transduction of odorant signals. The olfactory receptor gene family is the largest in the genome. The nomenclature assigned to the olfactory receptor genes and proteins for this organism is independent of other organisms. [provided by RefSeq, Jul 2008]

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