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OR2AT4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11920b

Product Information

Application	WB, E
Primary Accession	A6NND4
Other Accession	NP_001005285.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB29948
Calculated MW	35503
Antigen Region	275-303

Additional Information

Gene ID	341152
Other Names	Olfactory receptor 2AT4, Olfactory receptor OR11-265, OR2AT4
Target/Specificity	This OR2AT4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 275-303 amino acids from the C-terminal region of human OR2AT4.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	OR2AT4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	OR2AT4 {ECO:0000303|PubMed:24999593, ECO:0000312|HGNC:HGNC:19620}
Function	Olfactory receptor (PubMed: 24999593, PubMed:30228264). Activated by the synthetic sandalwood odorant sandalore (PubMed:24999593, PubMed:30228264). Endogenous ligand is unknown (Probable). The activity of

	this receptor is probably mediated by G proteins which induce elevation of intracellular Ca(2+), a cAMP- dependent pathway and phosphorylation of MAPK1/ERK2, MAPK3/ERK1 and p38 MAPKs (PubMed:24999593, PubMed:30228264). Activation of OR2AT4 induces proliferation, migration, and re-epithelialization during wound-healing processes of keratinocytes (PubMed:24999593). Stimulation of OR2AT4 by sandalore promotes hair growth by decreasing apoptosis and increasing production of the anagen-prolonging growth factor IGF1 as well as other pathways involving various kinases (PubMed:30228264).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected in the keratinocytes of the epidermis (at protein level) (PubMed:24999593). Detected in hair follicles in proximal outer root sheath and hair matrix keratinocytes (at protein level) (PubMed:30228264).

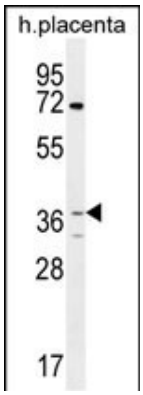
Background

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.

References

Malnic, B., et al. Proc. Natl. Acad. Sci. U.S.A. 101(8):2584-2589(2004)

Images



OR2AT4 Antibody (C-term) (Cat. #AP11920b) western blot analysis in human placenta tissue lysates (35ug/lane).This demonstrates the OR2AT4 antibody detected the OR2AT4 protein (arrow).