# Olfactory Receptor 2ae1 (OR2AE1) Human Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | Olfactory receptor 2AE1 (OR2AE1), Recombinant Protein |
| **Full Product Name** | Recombinant Human Olfactory receptor 2AE1 (OR2AE1) |
| **Product Gene Name** | OR2AE1 recombinant protein |
| **Product Synonym Gene Name** | OR2AE2 |
| **Sequence** | MWQKNQTSLA DFILEGLFDD SLTHLFLFSL TMVVFLIAVS GNTLTILLIC IDPQLHTPMY FLLSQLSLMD LMHVSTIILK MATNYLSGKK SISFVGCATQ HFLYLCLGGA ECFLLAVMSY DRYVAICHPL RYAVLMNKKV GLMMAVMSWL GASVNSLIHM AILMHFPFCG PRKVYHFYCE FPAVVKLVCG DITVYETTVY ISSILLLLPI FLISTSYVFI LQSVIQMRSS GSKRNAFATC GSHLTVVSLW FGACIFSYMR PRSQCTLLQN KVGSVFYSII TPTLNSLIYT LRNKDVAKAL RRVLRRDVIT QCIQRLQLWL PRV |
| **Host** | Cell Free Expression |
| **Form/Format** | Liquid containing glycerol |
| **Purity/Purification** | Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific) |
| **Preparation and Storage** | Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.<br>Repeated freezing and thawing is not recommended. Store working aliquots at 4 degree C for up to one week. |
| **Molecular Weight** | 36,588 Da |
| **Sequence Positions** | 1-323aa; full length protein |
| **3D Structure** | ModBase 3D Structure for Q8NHA4 |
| **Species** | Human |
| **Product Categories/Family for OR2AE1 recombinant protein** | Transmembrane Protein |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Application Notes for OR2AE1 recombinant protein** | This is a recombinant transmembrane protein expressed in a cell-free expression system. |
| **Related Product Information for OR2AE1 recombinant protein** | MBS7024784 is a recombinant protein targeting OR2AE1. Also known as Recombinant Human Olfactory receptor 2AE1 (OR2AE1). Host: Cell Free Expression. |
| **Other Notes** | Small volumes of OR2AE1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OR2AE1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 52627151 |
| **NCBI GeneID** | 81392 |
| **NCBI Accession #** | NP_001005276.1 |
| **UniProt Primary Accession #** | Q8NHA4 |
| **UniProt Secondary Accession #** | B2RPD2 |

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| **UniProt Related Accession #** | Q8NHA4 |
| **GenBank Nucleotide #** | NM_001005276.1 |
| **NCBI Official Full Name** | olfactory receptor 2AE1 |
| **NCBI Official Synonym Full Names** | olfactory receptor family 2 subfamily AE member 1 |
| **NCBI Official Symbol** | OR2AE1 |
| **NCBI Official Synonym Symbols** | OR2AE2 |
| **UniProt Protein Name** | Olfactory receptor 2AE1 |
| **UniProt Synonym Protein Names** | Olfactory receptor 2AE2 |
| **Protein Family** | Olfactory receptor |
| **UniProt Gene Name** | OR2AE1 |
| **UniProt Synonym Gene Names** | OR2AE2 |
| **UniProt Entry Name** | O2AE1_HUMAN |
| **NCBI Protein Information** | olfactory receptor 2AE1 |
| **NCBI Summary for OR2AE1** | 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] |
| **UniProt Comments for OR2AE1** | OR2AE1: Odorant receptor (Potential). Belongs to the G-protein coupled receptor 1 family.<br><br>Protein type: Receptor, GPCR; GPCR, family 1; Membrane protein, multi-pass; Membrane protein, integral<br><br>Chromosomal Location of Human Ortholog: 7q22.1<br><br>Cellular Component: integral to membrane; plasma membrane<br><br>Molecular Function: G-protein coupled receptor activity; olfactory receptor activity<br><br>Biological Process: detection of chemical stimulus involved in sensory perception of smell; G-protein coupled receptor protein signaling pathway; sensory perception of smell |
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