Datasheet for ABIN2727919

Mu Opioid Receptor 1 Protein (Myc-DYKDDDDK Tag)

1 Image

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Overview

Quantity:	20 µg
Target:	Mu Opioid Receptor 1 (OPRM1)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Mu Opioid Receptor 1 protein is labelled with Myc-DYKDDDDK Tag.
Application:	Antibody Production (AbP), Standard (STD)

Product Details

Characteristics:	• Recombinant human OPRM1 (transcript variant MOR-1) protein expressed in HEK293 cells. • Produced with end-sequenced ORF clone
Purity:	> 80 % as determined by SDS-PAGE and Coomassie blue staining

Target Details

Target:	Mu Opioid Receptor 1 (OPRM1)
Alternative Name:	Oprm1 (OPRM1 Products)
Background:	Receptor for endogenous opioids such as beta-endorphin and endomorphin. Receptor for natural and synthetic opioids including morphine, heroin, DAMGO, fentanyl, etorphine, buprenorphin and methadone. Agonist binding to the receptor induces coupling to an inactive GDP-bound heterotrimeric G-protein complex and subsequent exchange of GDP for GTP in the G-protein alpha subunit leading to dissociation of the G-protein complex with the free GTP-

Target Details

	bound G-protein alpha and the G-protein beta-gamma dimer activating downstream cellular effectors. The agonist- and cell type-specific activity is predominantly coupled to pertussis toxin-sensitive G(i) and G(o) G alpha proteins, GNAI1, GNAI2, GNAI3 and GNAO1 isoforms Alpha-1 and Alpha-2, and to a lesser extent to pertussis toxin-insensitive G alpha proteins GNAZ and GNA15. They mediate an array of downstream cellular responses, including inhibition of adenylate cyclase activity and both N-type and L-type calcium channels, activation of inward rectifying potassium channels, mitogen-activated protein kinase (MAPK), phospholipase C (PLC), phosphoinositide/protein kinase (PKC), phosphoinositide 3-kinase (PI3K) and regulation of NF-kappa-B. Also couples to adenylate cyclase stimulatory G alpha proteins. The selective temporal coupling to G-proteins and subsequent signaling can be regulated by RGSZ proteins, such as RGS9, RGS17 and RGS4. Phosphorylation by members of the GPRK subfamily of Ser/Thr protein kinases and association with beta-arrestins is involved in short-term receptor desensitization. Beta-arrestins associate with the GPRK-phosphorylated receptor and uncouple it from the G-protein thus terminating signal transduction. The phosphorylated receptor is internalized through endocytosis via clathrin-coated pits which involves beta-arrestins. The activation of the ERK pathway occurs either in a G-protein-dependent or a beta-arrestin-dependent manner and is regulated by agonist-specific receptor phosphorylation. Acts as a class A [UniProtKB/Swiss-Prot Function]
Molecular Weight:	44.6 kDa
NCBI Accession:	NP_000905
Pathways:	cAMP Metabolic Process, Synaptic Membrane

Application Details

Application Notes:	Recombinant human proteins can be used for: Native antigens for optimized antibody production Positive controls in ELISA and other antibody assays
Comment:	The tag is located at the C-terminal.
Restrictions:	For Research Use only

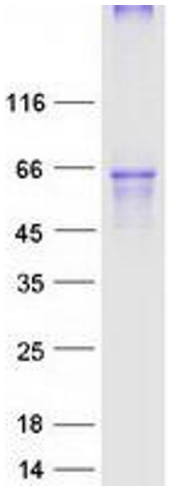
Handling

Concentration:	50 µg/mL
Buffer:	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10 % glycerol.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C. Thaw on ice, aliquot to individual single-use tubes, and then re-freeze immediately. Only 2-3 freeze thaw cycles are recommended.

Images



Western Blotting

Image 1. Validation with Western Blot