

## Product datasheet for **TA328920**

### Oprm1 Rabbit Polyclonal Antibody

#### Product data:

|                        |   |
|------------------------|---|
| Product Type:          | Primary Antibodies  |
| Applications:          | IHC, WB   |
| Recommended Dilution:  | WB: 1:200-1:2000; IHC: 1:100-1:3000   |
| Reactivity:            | Human, Mouse, Rat   |
| Host:                  | Rabbit  |
| Clonality:             | Polyclonal  |
| Immunogen:             | Peptide CSPAPGSWLNLSHVDGN, corresponding to amino acid residues 22-38 of the rat $\mu$ -Opioid receptor. Extracellular, N-terminus.   |
| Formulation:           | Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> . |
| Reconstitution Method: | Add 50 ul double distilled water (DDW) to the lyophilized powder.   |
| Purification:          | Affinity purified on immobilized antigen.   |
| Conjugation:           | Unconjugated  |
| Storage:               | Store at -20°C as received.   |
| Stability:             | Stable for 12 months from date of receipt.  |
| Gene Name:             | opioid receptor, mu 1   |
| Database Link:         | <a href="#">NP_037203</a><br><a href="#">Entrez Gene 4988 Human</a> <a href="#">Entrez Gene 18390 Mouse</a> <a href="#">Entrez Gene 25601 Rat</a><br><a href="#">P33535</a>   |



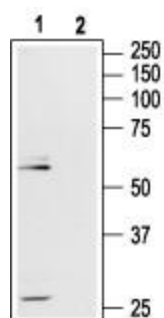
[View online »](#)

**Background:**

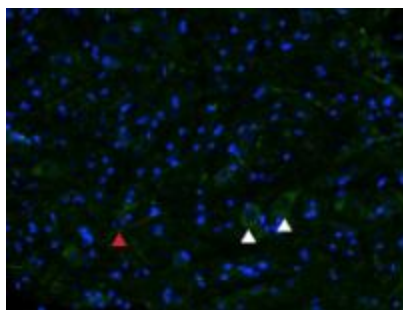
Endogenous opiates such as endorphins, endomorphins, and enkephalins, as well as opiate drugs (including morphine) exert their effects by binding to opioid receptors. Three "classic" types of opioid receptors have been identified:  $\mu$ -opioid (MOP) receptor, delta (d)-opioid (DOP) receptor, and  $\kappa$ -opioid (KOP) receptor. Recently, the nociceptin/orphanin FQ (N/OFQ) peptide (NOP) receptor was also described. Despite its significant sequence homology, its pharmacological profile differs greatly from those of the classic  $\mu$ , d, and  $\kappa$  receptors. The opioid receptors belong to the G protein-coupled receptor (GPCR) superfamily whose members share a common structure of seven putative transmembrane domains, an extracellular amino terminus, a cytoplasmic carboxyl terminus, and a third intracellular loop important for binding G proteins. All three receptors mediate opioid-induced analgesia. Supraspinal analgesia is mainly mediated by the  $\mu$ -receptors, whereas  $\mu$ -, d-, and  $\kappa$ -receptors participate in the control of pain at the spinal level. These receptors also mediate the mood-altering properties of opioids. Of the opioid receptors, the  $\mu$ -opioid receptor has been the most extensively studied due to its important role in mediating the actions of morphine and other analgesic agents, as well as other addictive drugs such as heroin. The  $\mu$ -opioid receptors are expressed in the central nervous system (CNS) and in the peripheral nervous system. The highest densities are found in the thalamus, caudate putamen, neocortex, amygdala, and other brain regions known to have well established roles in pain and analgesia.

**Synonyms:**

hMOP; KIAA0403; LMOR; MOP; MOR; MOR-1; MOR1; OPRM

**Product images:**

Western blot analysis of rat hippocampus lysate: 1. Anti- $\mu$ -Opioid Receptor (extracellular) antibody, (1:200). 2. Anti- $\mu$ -Opioid Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of  $\mu$ -opioid receptor (MOR-1) in rat spinal cord. Immunohistochemical staining of rat spinal cord frozen section using Anti- $\mu$ -Opioid Receptor (extracellular) antibody, (1:100), followed by goat anti-rabbit AlexaFluor-488 secondary antibody (green). Staining is present in both neuronal cell bodies (white arrows) and their prolongations (red arrows). Hoechst 33342 is used as the counterstain (blue).