

5-HTR4 (D8O5K) Rabbit mAb

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Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40-140	Source/Isotype: Rabbit IgG	UniProt ID: #Q13639	Entrez-Gene Id: 3360
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

5-HTR4 (D8O5K) Rabbit mAb recognizes endogenous levels of total 5-HTR4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala361 of human 5-HTR4 protein.

Background

Serotonin (5-hydroxytryptamine, 5-HT) is a central nervous system monoamine implicated in a number of physiological functions, including sleep, mood, appetite, anxiety, and neurovegetative control (1). Serotonin acts through the activation of G protein receptors called serotonin receptors (5-HTRs). Seven 5-HTR subclasses (5-HTR1-7) have been described to date (2). Serotonin receptor 4 (5-HTR4) couples to Gas (3), with stimulation of the receptor leading to adenylyl cyclase activation, elevation of cyclic AMP levels and downstream PKA activation (4). The corresponding *HTR4* gene exhibits a complex structure, which includes a large number of splice variants that seem to share the same pharmacological properties (5). 5-HTR4 is one of several receptors implicated in cognition, depression, and the development of Alzheimer's disease (6-8).

Background References

- Jacobs, B.L. and Azmitia, E.C. (1992) *Physiol Rev* 72, 165-229.
- Hoyer, D. et al. (1994) *Pharmacol Rev* 46, 157-203.
- Bockaert, J. et al. (2006) *Cell Tissue Res* 326, 553-72.
- Nichols, D.E. and Nichols, C.D. (2008) *Chem Rev* 108, 1614-41.
- Hannon, J. and Hoyer, D. (2008) *Behav Brain Res* 195, 198-213.
- King, M.V. et al. (2008) *Trends Pharmacol Sci* 29, 482-92.
- Lucas, G. et al. (2007) *Neuron* 55, 712-25.
- Cho, S. and Hu, Y. (2007) *Exp Neurol* 203, 274-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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