



Anti-Dopamine Receptor D1 (DRD1), Rabbit-Polyclonal Antibody

Catalog No. GB-30081
Antigen species: Human
Host species: Rabbit

Quantity: 100µg
Reactivity: Human
Form: Peptide affinity purified antibody

Applications: ELISA

Target description

The D1 subtype is the most abundant dopamine receptor in the central nervous system. This G-protein coupled receptor stimulates adenylyl cyclase and activates cyclic AMP-dependent protein kinases. D1 receptors regulate neuronal growth and development, mediate some behavioral responses, and modulate dopamine receptor D2-mediated events. Alternate transcription initiation sites result in two transcript variants of this gene. Dopamine receptor D1 has been reported mostly in various regions of the brain. ESTs have been isolated from normal olfactory epithelium and cancerous genitourinary tract libraries.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide containing amino acids on the predicted extracellular domain of human DRD1.

Application

The antibody specificity was assayed by ELISA with the synthetic GRM2 peptide antigen. The antiserum titer is about 97K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/1,000 dilution for ELISA, 1/200 dilution for Western blot analysis (WB) of recombinant protein, 1/10 dilution for tissue extracts or cell lysates, 1/2 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/1 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-Dopamine receptor D2(DRD2), pAb (GB-30082)

Ab dilution	Pre-bleed	Purified-Ab
1:100	0.370	1.889
1:1,000	0.114	0.930
1:10,000	0.066	0.460
1:100,000	0.050	0.141
Titer		97.1K

ELISA Protocol

Antigen is coated on EIA strips at 1µg per well. Add 200µl of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30081 is diluted in series as $10^2 \sim 10^5$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined positive as >0.1 of ABS of antiserum minus pre-bleed serum.

Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1×PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Sunahara, R.k., Niznik, H.B., Weiner, D.M., Tormann, T.M., Brann, M.R., Kennedy, J.L., Gelemter, J.E., Rozmahel, R., Yang, Y.L., Israel, Y. 1990. Human dopamine D1 receptor encoded by an intronless gene on chromosomes 5. *Nature* 347(6288), 80-83.
2. Watanabe, H., Xu, J., Bengra, C., Jose, P.A. and Felder, R.A. 2002. Desensitization of human renal D1 dopamine receptors by G protein-coupled receptor kinase 4. *Kidney Int.* 62(3), 790-798.

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