Monoclonal Anti-human Pro-BDNF Antibody

ORDERING INFORMATION

Catalog Number: MAB3175

Clone: 584421

Lot Number: CEDO01

Size: 100 μg

Formulation: 0.2 μm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human Pro-BDNF

Immunogen: CHO cell-derived rhPro-BDNF

Ig class: mouse IgG_1

Recommended Application:
Immunohistochemistry

Other Application:
Direct ELISA

Background

BDNF is a member of the NGF family of neurotrophic factors that are required for the differentiation and survival of neuronal subpopulations in the central and peripheral nervous systems. BDNF functions through interactions with the TrkB receptor tyrosine kinase and the low affinity neurotrophin receptor, p75 (NTR). The N-terminal pro region of BDNF is removed by tPA and furin to release biologically active BDNF. (Accession # P23560). The propeptides of human and mouse BDNF share 93% sequence identity.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, CHO-derived, recombinant human Pro-BDNF (rhPro-BDNF ; aa 1 - 247: Accession # P23560). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 μg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody detects rhPro-BDNF in direct ELISAs. In this format, this antibody shows no cross-reactivity with rhBDNF (mature), rhbeta-NGF, rhNT-3, rhPro-NT-3, rhNT-4, or rhPro-NT-4.

Applications

Immunohistochemistry - This antibody was used at a concentration of 25 μg/mL with appropriate secondary reagents to detect Pro-BDNF in paraffin-embedded normal human spinal cord tissue sections. For chromogenic detection of labeling, the use of R&D Systems Cell and Tissue Staining Kits (CTS Series) is recommended.

Direct ELISA - This antibody can be used at 0.5 - 1.0 μg/mL with the appropriate secondary reagents to detect Pro-BDNF. The detection limit for rhPro-BDNF is approximately 4 ng/well.

For immunohistochemistry images, please refer to our website at http://www.RnDSystems.com/go/ihc.

Optimal dilutions should be determined by each laboratory for each application.

R&D Systems, Inc.
1-800-343-7475

8/16/10