



Monoclonal Anti-human UNC13B Antibody

ORDERING INFORMATION

Catalog Number: MAB6188

Clone: 584102

Lot Number: CDXL01

Size: 100 µg

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

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human UNC13B

Immunogen: *E. coli*-derived rhUNC13B

Ig class: mouse IgG_{2b}

Recommended Application:
Immunohistochemistry

Other Application:
Direct ELISA

Background

UNC13B is a 170 kDa member of the UNC13 family. It is 1591 amino acids (aa) in length and contains three C2 domains, one MHD1 domain, one MHD2 domain, and one phorbol-ester/DAG-type zinc finger. Human UNC13B is 95% and 93% aa identical to mouse and rat UNC13B, respectively. UNC13B is expressed in brain and kidney cortical epithelial and mesangial cells. UNC13B plays a role in vesicle maturation during exocytosis as a target of the diacylglycerol second messenger pathway. It is involved in neurotransmitter release by acting in synaptic vesicle priming prior to vesicle fusion and participates in the activity-dependent refilling of readily releasable vesicle pool (RRP). In addition, UNC13B may be involved in mediating some of the acute and chronic changes in mesangial cells produced by exposure to hyperglycemia.

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, *E. coli*-derived, recombinant human UNC13B (rhUNC13B; aa 418 - 1591; Accession # O14795). 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 rhUNC13B in direct ELISAs. In this format, this antibody shows no cross-reactivity with rhUNC13A or rhUNC13C.

Applications

Immunohistochemistry - This antibody was used at a concentration of 25 µg/mL with appropriate secondary reagents to detect rhUNC13B in paraffin-embedded human normal and cancer kidney 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 human UNC13B. The detection limit for rhUNC13B is approximately 5 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.