# Human/Mouse UNC13D Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1224B
Catalog Number: MAB89662

## DESCRIPTION

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|---|---|
| **Species Reactivity** | Human/Mouse |
| **Specificity** | Detects human and mouse UNC13D in Western blots. |
| **Source** | Recombinant Monoclonal Rabbit IgG Clone # 1224B |
| **Purification** | Protein A or G purified from cell culture supernatant |
| **Immunogen** | KLH-coupled N-terminal human UNC13D peptide<br>Accession # Q70J99 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS. |

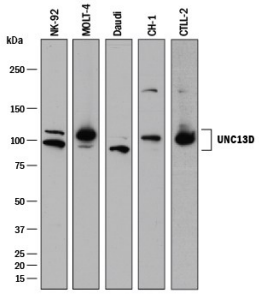
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Western Blot** | 0.5 µg/mL | See Below |
| **Simple Western** | 5 µg/mL | See Below |

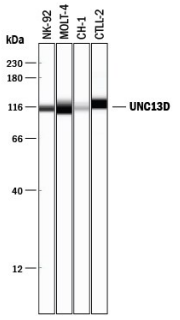
## DATA

### Western Blot




**Detection of Human and Mouse UNC13D by Western Blot.** Western blot shows lysates of NK-92 human natural killer lymphoma cell line, MOLT-4 human acute lymphoblastic leukemia cell line, Daudi human Burkitt's lymphoma cell line, CH-1 mouse B cell lymphoma cell line, and CTLL-2 mouse cytotoxic T cell line. PVDF membrane was probed with 0.5 µg/mL of Rabbit Anti-Human/Mouse UNC13D Monoclonal Antibody (Catalog # MAB89662) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Specific bands were detected for UNC13D at approximately 95-115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Simple Western




**Detection of Human and Mouse UNC13D by Simple Western™.** Simple Western lane view shows lysates of NK-92 human natural killer lymphoma cell line, MOLT-4 human acute lymphoblastic leukemia cell line, CH-1 mouse B cell lymphoma cell line, and CTLL-2 mouse cytotoxic T cell line, loaded at 0.2 mg/mL. A specific band was detected for UNC13D at approximately 112-122 kDa (as indicated) using 5 µg/mL of Rabbit Anti-Human/Mouse UNC13D Monoclonal Antibody (Catalog # MAB89662) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

## PREPARATION AND STORAGE

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| **Reconstitution** | Reconstitute at 0.5 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

UNC13D (also Munc13-4) is a 123 kDa cytoplasmic and peripheral membrane protein that is expressed at highest levels in hematopoietic tissues. UNC13D appears to play a role in vesicle maturation during exocytosis and its expression is obligatory for exocytosis of cytolytic granules from NK and T cells. A point mutation in intron 1 of UNC13D causes familial hematophagocytic lymphohistiocytosis type3, a rare autosomal recessive immune deficiency. The mutation disrupts transcription factor binding and prevents expression of an alternative isoform that is required for lymphocyte cytotoxicity. The conventional and alternative isoforms are identical from amino acids (aa) 40-1090 but have distinct N-terminal segments. Human and mouse have 75% aa sequence identity throughout the region used as the immunogen. It is unknown whether mice express the alternative isoform.



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