Human ADAMTS5 Antibody
Monoclonal Mouse IgG2B Clone # 362810
Catalog Number: MAB2198

DESCRIPTION
Species Reactivity Human
Specificity Detects human ADAMTS5 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) ADAMTS1 or rhADAMTSL1.2 is observed.
Source Monoclonal Mouse IgG2B Clone # 362810
Purification Protein A or G purified from hybridoma culture supernatant
Immunogen Mouse myeloma cell line NS0-derived recombinant human ADAMTS5 Ser262-Pro622 Accession # Q9UNA0
Formulation Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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
1 µg/mL Recombinant Human ADAMTS5 (Catalog # 2198-AD) under non-reducing conditions only
Immunoprecipitation
25 µg/mL Conditioned cell culture medium spiked with Recombinant Human ADAMTS5 (Catalog # 2198-AD), see our available Western blot detection antibodies

PREPARATION AND STORAGE
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.
*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.
Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND
ADAMTS5 (a disintegrin and metalloproteinase with thrombospondin motifs 5), also known as Aggrecanase-2 and ADAMTS11, is a member of the family of secreted zinc proteases with a multi-domain structure (1, 2). The protein precursors consist of signal peptide and following domains: pro, catalytic, disintegrin-like, TS type 1 motif, cysteine-rich, spacer and a variable number of TS type 1 motifs. ADAMTS5 is an active protease effectively cleaving α2-Macroglobulin (3), Aggrecan (4), and Brevican (5), and is inhibited by TIMP-3 with inhibition constants in the subnanomolar range (6). Based on the murine model studies (7, 8), this protease may be a key enzyme in the degradation of cartilage leading to osteoarthritis and rheumatoid arthritis. The purified recombinant human (rh) ADAMTS5 starts at the N-terminus of the catalytic domain and ends at the C-terminus of the TSP-1 domain. The amino acid sequence of rhADAMTS5 is 98%, 97%, and 96% identical to that of canine, bovine, and mouse/rat. The aggrecanase activity can be inhibited by 5 mM 1,10-phenanthroline and rhTIMP-3 (R&D Systems, Catalog # 973-TM).

References: