RDsystems a biotechne brand

Human/Mouse/Rat Mind Bomb 1/MIB1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF7305

DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects human, mouse and rat Mind Bomb 1/MIB1 in Western blots and detects recombinant human Mind Bomb 1/MIB1 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant MIB2 is observed.		
Source	Polyclonal Sheep IgG		
Purification	Antigen Affinity-purified		
Immunogen	<i>E. coli-</i> derived recombinant human Mind Bomb 1/MIB1 Thr365-Gln461 Accession # Q86YT6		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *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	1 µg/mL	See Below

DATA

Western Blot	
1007 1007	Detection of Human, Mouse, and Rat Mind Bomb 1/MIB1 by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line, mouse liver tissue, and rat liver tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat Mind Bomb 1/MIB1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7305) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Mind Bomb 1/MIB1 at approximately 115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE		
Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *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. 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

MIB1 (Mind bomb 1; also DIP-1 and ZZANK2) is a 110-115 kDa E3 ubiquitin ligase. It is widely expressed in both embryo and adult, and appears to have a nonredundant role in Notch receptor signaling. Notch signaling is initiated when a transmembrane (TM) Notch ligand (Jagged or Delta) binds to Notch on an adjacent cell. This ligation induces cleavage of the Notch extracellular domain (ECD) with the creation of a Jagged/Delta:NotchECD complex. This complex is now internalized by the Notch ligand-expressing cell. The displacement of the NotchECD from its TM segment promotes further Notch processing, resulting in Notch signaling. The key internalization step by the ligand-expressing cell is mediated by the MIB1 E3 ubiquitin ligase. Human MIB1 is 1006 amino acids (aa) in length. It contains multiple interspersed Ankyrin repeats, MIB domains, and zinc-finger motifs. There is one potential alternative start site at Met84. Over aa 365-461, human MIB1 shares 99% aa sequence identity with mouse MIB1.

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