

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat FKBP38 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human FKBP-12, -12.6, -13, -25, -51, or -52 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> derived recombinant mouse FKBP38 Met1-Gly326 Accession # AAH03739
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 as a 0.2 µm filtered solution in PBS.

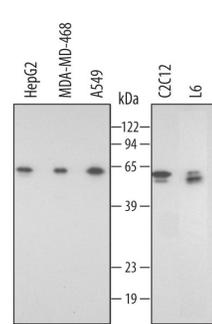
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	5 µg/mL	See Below

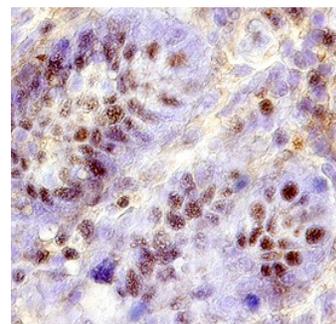
DATA

Western Blot



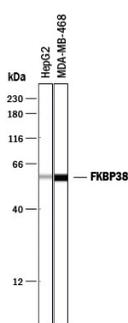
Detection of Human/Mouse/Rat FKBP38 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, MDA-MB-468 human breast cancer cell line, A549 human lung carcinoma cell line, C2C12 mouse myoblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human/Mouse/Rat FKBP38 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3580) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for FKBP38 at approximately 60 - 64 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Immunohistochemistry



FKBP38 in Human Intestine. FKBP38 was detected in immersion fixed paraffin-embedded sections of human intestine using 15 µg/mL Goat Anti-Human/Mouse/Rat FKBP38 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3580) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to the nucleus of epithelial cells in intestinal glands. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#). This application has not been tested in rat or mouse tissue.

Simple Western



Detection of Human FKBP38 by Simple Western™. Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line and MDA-MB-468 human breast cancer cell line, loaded at 0.2 mg/mL. A specific band was detected for FKBP38 at approximately 58 kDa (as indicated) using 5 µg/mL of Goat Anti-Human/Mouse/Rat FKBP38 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3580) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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 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. <ul style="list-style-type: none"> • 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

FK506 Binding Proteins (FKBPs) are intracellular receptors for the immuno-suppressive drug FK506. The FKBP/FK506 complex exerts its immunosuppressive effects by inhibiting calcineurin, a calcium- and calmodulin-dependent serine/threonine phosphatase that functions as a critical signaling molecule during T cell activation. FKBP38, also known as FKBP8, is a 355 amino acid (aa) protein with a calculated molecular weight of 38.7 kDa and an apparent molecular mass of ~60-64 kDa in SDS-PAGE. FKBP38 binds to and inhibits calcineurin even in the absence of FK506, indicating that FKBP38 is a constitutively active inhibitor of calcineurin. Additionally, FKBP38 immunoprecipitates with Bcl-2 and Bcl-xL, suggesting that FKBP38 may regulate apoptosis by anchoring Bcl-2 and Bcl-xL to mitochondrial membranes. Mouse FKBP38 shares 94% and 87% sequence identity with human and rat FKBP38, respectively.