Human FKBP12 Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 1049713

Catalog Number: FAB37771N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects both Human FKBP12 and $FKBP12^{F36V}$ mutant in direct Elisas
Source	Monoclonal Mouse IgG_{2B} Clone # 1049713
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived human $FKBP12^{F36V}$ protein Gly1-Glu108 Accession # P62942
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

FK506 binding protein, 12 kilodalton molecular weight (FKBP12), also called FKBP1, was originally characterized as a peptidyl-prolyl isomerase that catalyzes the transition between cis- and trans-proline residues critical for proper folding of proteins. The macrolide immunosuppressants FK506 (Tacrolimus) and rapamycin bind to FKBP12 with high affinity, while the structurally related compound cyclosporine binds with a much lower affinity (1). The binding of these drugs causes FKBP12 to become a potent inhibitor of calcineurin phosphatase activity (2) and TOR kinase activity (3). The inhibition of protein phosphatase activity is highly selective for calcineurin (2), making the FK506/FKBP12 complex a useful tool in the study of this enzyme. Knockout mice lacking FKBP12 are morphologically normal, but develop cardiomyopathies that may be related to dysregulation of ryanodyne receptors (4).

PRODUCT SPECIFIC NOTICES

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