



Mouse anti-Human FKBP12 monoclonal antibody, clone 9/GLCQ23 (CABT-B9207)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human FKBP12 aa. 1-108
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse, Dog, Chicken
Clone	9/GLCQ23
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF; IHC
Format	Liquid
Concentration	250 µg/ml
Size	50 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	Transforming growth factor- β binds to the TGF β family of heteromeric serine/threonine
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transmembrane receptors (type I and type II). Following binding of TGF β , the type II receptor (T β R-II) phosphorylates the type I receptor (T β R-I) which, in turn, conveys the signal. Since T β R-I and T β R-II can interact without the stimulation of TGF β , leading to unwanted activation, a regulatory mechanism exists. In a yeast genetic screen, immunophilin FKBP12 was associated with the type I receptor. Studies including co-immunoprecipitation, deletion, and point mutations confirmed this interaction. FKBP12 inhibits T β R-II mediated phosphorylation of T β R-I, inhibiting activation. FKBP12 binds via its rapamycin/Leu-Pro binding pocket to the Leu-Pro sequence adjacent to the phosphorylation site of T β R-I. This interaction is blocked by the addition of macrolides, rapamycin, and FK506. Furthermore, mutations in the binding sites of FKBP12 and T β R-I abrogates the binding and results in activation of the receptor without the addition of TGF β . Thus, FKBP12 is a regulatory protein for T β R-I and T β R-II-mediated signaling.

Keywords

FKBP1A; FK506 binding protein 1A, 12kDa; FKBP1; PKC12; PKC12; FKBP12; PPIASE; FKBP-12; FKBP-1A; peptidyl-prolyl cis-trans isomerase FKBP1A; rotamase; 12 kDa FKBP; calstabin 1; calstabin-1; FKBP12-Exip3; PPIase FKBP1A; immunophilin FKBP12; FK506 binding protein12; FK506-binding protein 1; FK506-binding protein 12; 12 kDa FK506-binding protein; protein kinase C inhibitor 2; FK506-binding protein 1A (12kD); FK506-binding protein, T-cell, 12-kD;

GENE INFORMATION

Entrez Gene ID[2280](#)**UniProt ID**[P62942](#)
