

Datasheet for ABIN968189

anti-FKBP1A antibody (AA 1-108)



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Overview

Quantity:	50 µg
Target:	FKBP1A
Binding Specificity:	AA 1-108
Reactivity:	Human, Mouse, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This FKBP1A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human FKBP12 aa. 1-108
Clone:	8-FKBP12
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Dog (Canine), Chicken
Characteristics:	<ol style="list-style-type: none"> 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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Target Details

Target:	FKBP1A
Alternative Name:	FKBP12 (FKBP1A Products)
Background:	<p>Transforming growth factor-beta binds to the TGFbeta family of heteromeric serine/threonine transmembrane receptors (type I and type II). Following binding of TGFbeta, the type II receptor (TbetaR-II) phosphorylates the type I receptor (TbetaR-I) which, in turn, conveys the signal. Since TbetaR-I and TbetaR-II can interact without the stimulation of TGFbeta, 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 TbetaR-II mediated phosphorylation of TbetaR-I, inhibiting activation. FKBP12 binds via its rapamycin/Leu-Pro binding pocket to the Leu-Pro sequence adjacent to the phosphorylation site of TbetaR-I. This interaction is blocked by the addition of macrolides, rapamycin, and FK506. Furthermore, mutations in the binding sites of FKBP12 and TbetaR-I abrogates the binding and results in activation of the receptor without the addition of TGFbeta. Thus, FKBP12 is a regulatory protein for TbetaR-I and TbetaR-II-mediated signaling.</p> <p>Synonyms: FK506 Binding Protein 1A</p>
Molecular Weight:	14 kDa
Pathways:	Negative Regulation of Transporter Activity , Methionine Biosynthetic Process

Application Details

Comment:	Related Products: ABIN968552, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:	Chen, Liu, Massague: "Mechanism of TGFbeta receptor inhibition by FKBP12." in: The EMBO journal , Vol. 16, Issue 13, pp. 3866-76, (1997) (PubMed).
	Wang, Donahoe, Zervos: "Specific interaction of type I receptors of the TGF-beta family with the immunophilin FKBP-12." in: Science (New York, N.Y.) , Vol. 265, Issue 5172, pp. 674-6, (1994) (PubMed).

Images



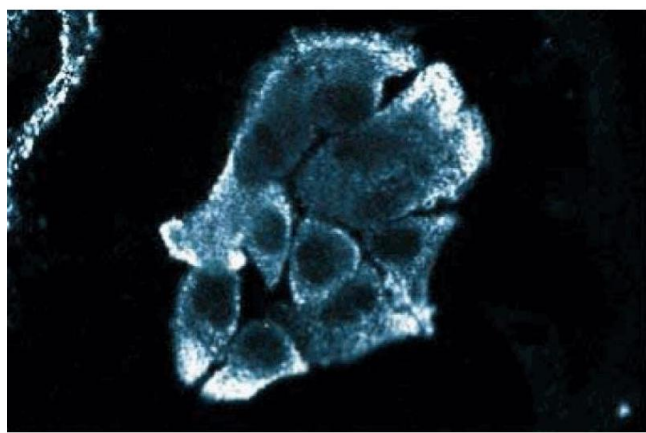
Image 1.





Western Blotting

Image 2. Western blot analysis of FKBP12 on a SW-13 cell lysate (Human adrenal gland carcinoma, ATCC CCL-105). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-FKBP12 antibody.



Immunofluorescence

Image 3. Immunofluorescence staining of HS 766T cells (Human pancreatic carcinoma, ATCC HTB-134).