



Mouse anti-Rat Tim23 monoclonal antibody, clone 43/Ujn34 (CABT-B9340)

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

PRODUCT INFORMATION

Immunogen	Rat Tim23 aa. 5-126
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	Mouse, Human, Rat
Clone	43/Ujn34
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 µg/ml
Size	50 µg, 150 µg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction Mitochondria, the site of cellular energy production, must import all proteins necessary for their

function. Import is mediated by two mechanisms: the translocase of the outer membrane (Tom) and the translocase of the inner membrane (Tim). Tim23 and Tim17 are integral membrane proteins that associate to form the import channel for mitochondrial preproteins that contain N-terminal hydrophilic sequences. They also associate with Tim44, an adaptor for the membrane binding of mtHsp70, a matrix heat shock protein, which drives the import of the processed preprotein. The N-terminal intermembrane space domain of Tim23 contains a leucine zipper motif and mediates the formation of a Tim23 dimer. As an imported protein passes through the TOM machinery, its N-terminal matrix targeting sequence interacts with the Tim23 dimer. This induces the dissociation of the dimer and initiation of inner membrane translocation of the presequence. In addition to its 9 kDa N-terminal hydrophilic segment, Tim23 contains a 14 kDa hydrophobic domain with four predicted membrane spans. Thus, Tim23 is an important integral membrane component of the mitochondrial protein translocation machinery.

Keywords

TIMM23; translocase of inner mitochondrial membrane 23 homolog (yeast);

GENE INFORMATION

Entrez Gene ID

[10431](#)
