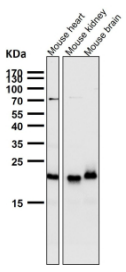
TIMM22 Antibody / Translocase of inner mitochondrial membrane 22 [clone 31T40] (FY12608)

Catalog No.	Formulation	Size
FY12608	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

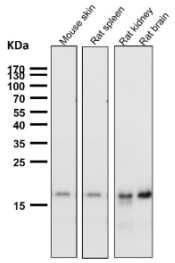
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31T40
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9Y584
Applications	Western Blot : 1:500-1:2000
Limitations	This TIMM22 antibody is available for research use only.



All lanes use the TIMM22 antibody at 1:2000 dilution for 1 hour at room temperature. Predicted molecular weight ~20 kDa.



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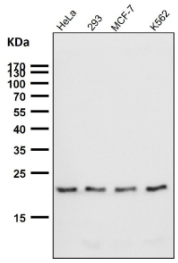

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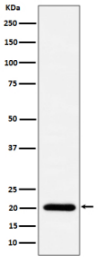

Western blot analysis of TIMM22 expression in human A431 cell lysate using TIMM22 antibody. Predicted molecular weight ~20 kDa.

Description

TIMM22 antibody detects translocase of inner mitochondrial membrane 22, a mitochondrial import protein encoded by the TIMM22 gene. TIMM22 is part of the TIM22 complex, which mediates insertion of multi-pass transmembrane proteins into the mitochondrial inner membrane. It recognizes hydrophobic precursor proteins delivered by the small TIM chaperone complex and inserts them into the inner membrane in an energy-dependent process. Through this activity, TIMM22 ensures proper biogenesis of mitochondrial carriers and maintenance of energy metabolism.

TIMM22 antibody is widely applied in mitochondrial biology and protein trafficking research. By detecting TIMM22, scientists can study how mitochondrial import machinery regulates oxidative phosphorylation and cellular energy production. Defects in TIMM22 function lead to impaired assembly of carrier proteins such as ADP/ATP translocases, disrupting mitochondrial function and cellular homeostasis.

Western blot assays detect TIMM22 protein in mitochondrial fractions, while immunohistochemistry highlights expression in tissues with high metabolic demand such as muscle, heart, and brain. Immunofluorescence reveals punctate mitochondrial staining, consistent with its localization in the inner membrane. These methods allow precise analysis of mitochondrial import processes.

Mutations in TIMM22 and disruption of mitochondrial protein import are linked to metabolic disorders, neurodegeneration, and cardiomyopathy. By applying TIMM22 antibody, researchers can investigate how defects in import machinery contribute to disease and explore therapeutic strategies to restore mitochondrial function.

TIMM22 antibody from NSJ Bioreagents provides dependable specificity for studying mitochondrial protein import and energy metabolism. Its strong performance across applications ensures accurate detection of TIMM22 in diverse biological systems.

Application Notes

Optimal dilution of the TIMM22 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human TIMM22 was used as the immunogen for the TIMM22 antibody.

Storage

Store the TIMM22 antibody at -20oC.