

Store at
-20C
#72610**Tom20 (D8T4N) Rabbit mAb (HRP Conjugate)**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 16	Source/Isotype: Rabbit IgG	UniProt ID: #Q15388	Entrez-Gene Id: 9804
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Tom20 (D8T4N) Rabbit mAb (HRP Conjugate) recognizes endogenous levels of total Tom20 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Tom20 protein.

Description

This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated Tom20 (D8T4N) Rabbit mAb #42406.

Background

Mitochondria play a central role in cellular energy metabolism and are essential organelles in eukaryotes. In humans, 13 proteins are encoded by the mitochondrial genome while the vast majority of mitochondrial proteins are encoded by the nuclear genome. As a result, most mitochondrial proteins are synthesized as precursors in the cytoplasm and imported across mitochondrial membranes by one or more translocase protein complexes (1). The translocase of the outer mitochondrial membrane (TOM complex) facilitates the import of proteins through the outer mitochondrial membrane, while the complementary translocase of the inner membrane (TIM complex) is responsible for protein transport to the mitochondrial matrix. The TOM complex consists of the receptors TOM20, TOM22, TOM70, and the channel-forming protein TOM40 (1). TOM20 is localized in the outer mitochondrial membrane and initially recognizes precursors with a presequence to facilitate protein import across the outer mitochondrial membrane (2). In a sequential process, recognition of the presequence by TOM20 is followed by tethering of the presequence to the TOM40 protein complex for efficient protein import (3).

Background References

1. Chacinska, A. et al. (2009) *Cell* 138, 628-44.
2. Saitoh, T. et al. (2007) *EMBO J* 26, 4777-87.
3. Yamamoto, H. et al. (2011) *Proc Natl Acad Sci U S A* 108, 91-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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