## bs-11217R

## [ Primary Antibody ]

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Reactivity: Mouse (predicted: Human,

Subcellular Location: Cell membrane ,Cytoplasm

Rat, Rabbit, Pig, Sheep, Cow, Chicken, Dog, Horse)

Applications: WB (1:500-2000)

Predicted 72 kDa

MW.:

## MTMR14 Rabbit pAb

DATASHEET

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

**GeneID:** 64419 **SWISS:** Q8NCE2

Target: MTMR14

**Immunogen:** KLH conjugated synthetic peptide derived from human MTMR14:

161-260/650.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50%

Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated

freeze/thaw cycles.

Background: Myotubularin-related protein 14 (MTMR14), also known as Jumpy,

is a myotubularin-related phosphoinositol-3-phosphate (PI3P) phosphatase (1). Mutations in the MTMR14 gene have been associated with centronuclear myopathy (1). MTMR14 deficiency in mice leads to altered calcium homeostasis and muscle disorders (2). MTMR14 has also been shown to play a role in autophagy, a process that is highly regulated by phosphatidylinositides through the type III PI3K, Vps34 (3). MTMR14 was localized to autophagic isolation membranes and early autophagosomes (3). In these studies, MTMR14 inhibited autophagy and mutations of MTMR14 associated with centronuclear myopathy were also defective in autophagy inhibition. In zebrafish, MTMR14 knockdown was shown to increase the number of autophagosomes, suggesting that its

activity is associated with an inhibition of autophagy (4).

VALIDATION IMAGES

Sample: Lung (Mouse) Lysate at 40 ug Primary: Anti-MTMR14 (bs-11217R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 72 kD Observed band size: 72 kD