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SMG1 Rabbit mAb
Catalog # AP77014

Specification

SMG1 Rabbit mAb - Product Information

Application	**WB**
Primary Accession	Q96Q15
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Monoclonal Antibody**
Calculated MW	**410501**

SMG1 Rabbit mAb - Additional Information

Gene ID 23049

Other Names
SMG1

Dilution
WB~~1/500-1/1000

Format
Liquid

SMG1 Rabbit mAb - Protein Information

Name SMG1 (HGNC:30045)

Function
Serine/threonine protein kinase involved in both mRNA surveillance and genotoxic stress response pathways. Recognizes the substrate consensus sequence [ST]-Q. Plays a central role in nonsense-mediated decay (NMD) of mRNAs containing premature stop codons by phosphorylating UPF1/RENT1. Recruited by release factors to stalled ribosomes together with SMG8 and SMG9 (forming the SMG1C protein kinase complex), and UPF1 to form the transient SURF (SMG1-UPF1-eRF1-eRF3) complex. In EJC-dependent NMD, the SURF complex associates with the exon junction complex (EJC) through UPF2 and allows the formation of an UPF1-UPF2-UPF3 surveillance complex which is believed to activate NMD. Also acts as a genotoxic stress-activated protein kinase that displays some functional overlap with ATM. Can phosphorylate p53/TP53 and is required for optimal p53/TP53 activation after cellular exposure to genotoxic stress. Its depletion leads to spontaneous DNA damage and increased sensitivity to ionizing radiation (IR). May activate PRKCI but not PRKCZ.

Cellular Location
Nucleus. Cytoplasm. Note=Present in the chromatoid body {ECO:0000250|UniProtKB:Q8BKX6}

Tissue Location
Widely expressed, with highest level in heart and skeletal muscle. Expressed in placenta, brain,

lung and spleen, but not in liver.

SMG1 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SMG1 Rabbit mAb - Images