

C12orf32 (11O1) Mouse Monoclonal antibody

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Product Information

Application WB
Primary Accession Q9BSD3
Reactivity Human
Clonality Monoclonal
Calculated MW 26709

Additional Information

Gene ID 83695

Other Names RAD9, HUS1, RAD1-interacting nuclear orphan protein 1, RAD9, RAD1,

HUS1-interacting nuclear orphan protein, RHNO1 (HGNC:28206)

Dilution WB~~1:1000

Storage Conditions -20°C

Protein Information

Name RHNO1 (HGNC:28206)

Function Involved in microhomology-mediated end-joining (MMEJ) DNA repair by

promoting recruitment of polymerase theta (POLQ) to DNA damage sites during mitosis (PubMed:37440612). MMEJ is an alternative non-homologous end-joining (NHEJ) machinery that takes place during mitosis to repair double-strand breaks in DNA that originate in S-phase (PubMed:37440612). Accumulates in M-phase; following phosphorylation by PLK1, interacts with POLQ, enabling its recruitment to double-strand breaks for subsequent repair (PubMed:37440612). Also involved in the DNA damage response (DDR) signaling in response to genotoxic stresses such as ionizing radiation (IR) during the S phase (PubMed:21659603, PubMed:25602520). Recruited to sites of DNA damage through interaction with the 9-1-1 cell-cycle checkpoint

response complex and TOPBP1 in a ATR-dependent manner

(PubMed:<u>21659603</u>, PubMed:<u>25602520</u>). Required for the progression of the G1 to S phase transition (PubMed:<u>21659603</u>). Plays a role in the stimulation of

CHEK1 phosphorylation (PubMed:21659603).

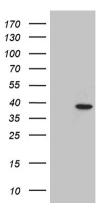
Cellular Location Nucleus. Chromosome Note=Localizes to sites of DNA damage in a

H2AX-independent manner

Tissue Location Weakly expressed in testis, prostate, ovary, thymus and small intestine

(PubMed:20811708). Expressed strongly in breast cancer cells

Images



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY C12orf32 (Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-C12orf32 (Cat# AP93893)(1:500). Positive lysates (100ug) and (20ug) can be purchased separately from biodragon.

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