

Anti-UIMC1 antibody



Description Unconjugated Rabbit polyclonal to UIMC1

Model STJ191585

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Gene ID <u>51720</u>

Gene Symbol <u>UIMC1</u>

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity UIMC1 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Expressed in testis, ovary, thymus and heart. Expressed in germ cells of the

testis.

Purification UIMC1 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name BRCA1-A complex subunit RAP80 Receptor-associated protein 80 Retinoid

X receptor-interacting protein 110 Ubiquitin interaction motif-containing

protein 1

Molecular Weight 79 kDa

Clonality Polyclonal

Conjugation Unconjugated

IgG Isotype

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Store at -20°C, and avoid repeat freeze-thaw cycles. **Storage Instruction**

HGNC:30298OMIM:609433 **Database Links**

Alternative Names BRCA1-A complex subunit RAP80 Receptor-associated protein 80 Retinoid

X receptor-interacting protein 110 Ubiquitin interaction motif-containing

protein 1

Function Ubiquitin-binding protein. Specifically recognizes and binds 'Lys-63'-linked

> ubiquitin. Plays a central role in the BRCA1-A complex by specifically binding 'Lys-63'-linked ubiquitinated histones H2A and H2AX at DNA lesions sites, leading to target the BRCA1-BARD1 heterodimer to sites of DNA damage at double-strand breaks (DSBs). The BRCA1-A complex also possesses deubiquitinase activity that specifically removes 'Lys-63'-linked ubiquitin on histones H2A and H2AX. Also weakly binds monoubiquitin but with much less affinity than 'Lys-63'-linked ubiquitin. May interact with monoubiquitinated histones H2A and H2B; the relevance of such results is however unclear in vivo. Does not bind Lys-48'-linked ubiquitin. May indirectly act as a transcriptional repressor by inhibiting the interaction of

NR6A1 with the corepressor NCOR1.

The tandem UIM domains form a continuous 60 Angstrom-long alpha-helix **Sequence and Domain Family**

> and mediate binding to 'Lys-63'-linked ubiquitins. UIM1 and UIM2 bind to the proximal and distal ubiquitin moieties and recognize an 'Ile-44'-centered hydrophobic patch. Since UIMs don't interact with the 'Lys-63' isopeptide bond the UIM-linker region between the 2 UIM domains determines the selectivity for 'Lys-63'-linkage, and its length is very important for specificity.

The Abraxas-interacting region (AIR) mediates the interaction with

ABRAXAS1.

Cellular Localization Nucleus. Localizes at sites of DNA damage at double-strand breaks (DSBs).

Post-translational **Modifications**

Sumovlated. Phosphorylated upon DNA damage by ATM or ATR.

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