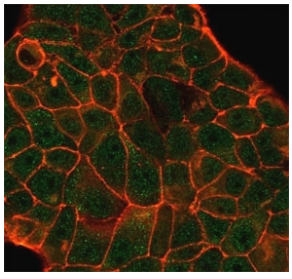
# Decapping Protein 2 Antibody / DCP2 / m7GpppN-mRNA hydrolase [clone PCRP-DCP2-1D6] (V9621)

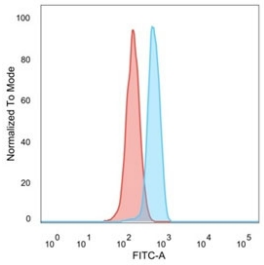
| Catalog No. | Formulation | Size |
|---|---|---|
| V9621-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V9621-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V9621SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

## Bulk quote request

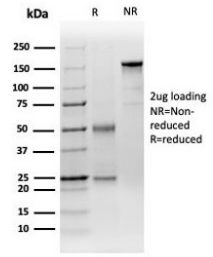
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG2a |
| **Clone Name** | PCRP-DCP2-1D6 |
| **Purity** | Protein A/G affinity |
| **UniProt** | Q8IU60 |
| **Localization** | Nucleus, Cytoplasm |
| **Applications** | Flow Cytometry : 1-2ug/million cells<br>Immunofluorescence : 1-2ug/ml |
| **Limitations** | This Decapping Protein 2 antibody is available for research use only. |



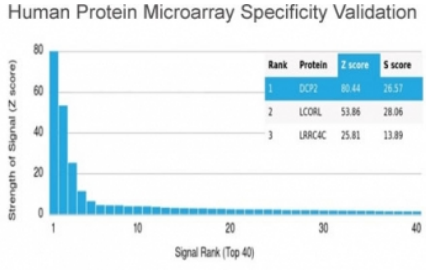
Immunofluorescent staining of PFA-fixed human MCF-7 using Decapping Protein 2 antibody (green, clone PCRP-DCP2-1D6) and phalloidin (red).




FACS staining of PFA-fixed human HeLa cells with Decapping Protein 2 antibody (blue, clone PCRP-DCP2-1D6), and unstained cells (red).




SDS-PAGE analysis of purified, BSA-free Decapping Protein 2 antibody (clone PCRP-DCP2-1D6) as confirmation of integrity and purity.




Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Decapping Protein 2 antibody (clone PCRP-DCP2-1D6). These results demonstrate the foremost specificity of the PCRP-DCP2-1D6 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

## Description

The major pathway of eukaryotic mRNA decay involves deadenylation-dependent decapping followed by 5exonucleolytic degradation. Human decapping enzyme 2 (hDcp2) is an mRNA decapping enzyme which contains intrinsic decapping activity. In nonsense-mediated decay, the human decapping complex, made up of hDcp1 and hDcp2, may be recruited to mRNAs containing premature termination codons by nonsense-mediated decay factor (Upf) proteins. The decapping activator complex (Lsm1p-7p) is also involved in the recruitment of the decapping complex, indicated by data showing that Lsm1p-7p enhances the co-immunoprecipitation of the complex with mRNA. Dcp2 specifically hydrolyzes methylated capped RNA to release m7GDP, thereby aiding in mRNA degradation. Both Dcp1 and Dcp2 co-localize in the cytoplasm, which is consistent with their role in mRNA decay

## Application Notes

Optimal dilution of the Decapping Protein 2 antibody should be determined by the researcher.

## Immunogen

Recombinant full-length human protein was used as the immunogen for the Decapping Protein 2 antibody.

## Storage

Aliquot the Decapping Protein 2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.