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| CONTACT INFORMATION: | Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas |
| STATUS: | Validated |
| TYPE: | Rat monoclonal |
| CLONE NAME: | PIL346C |
| PROTEIN: | Cdkn2a |
| PROTEIN WEB: | https://www.uniprot.org/uniprot/Q64364 |
| ANTIGEN USED: | His-MBP-mp19arf |
| FUSION PARTNER: | NS1/Ag4-1 (NS1) cells |
| ISOTYPE: | IgG2b |
| SPECIES REACTIVITY: | mouse |
| PREPARATION AND STORAGE: | Aliquot and store at 4C. Do not freeze |

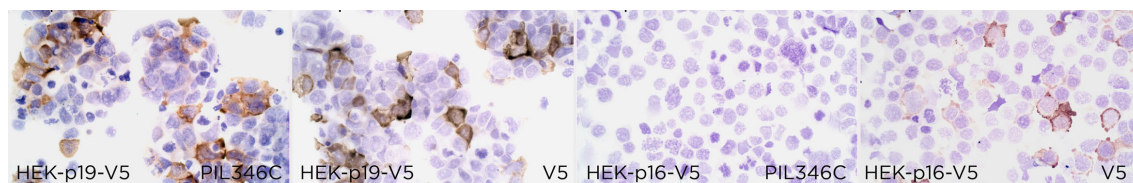
DESCRIPTION

Capable of inducing cell cycle arrest in G1 and G2 phases. Acts as a tumor suppressor. Binds to MDM2 and blocks its nucleocytoplasmic shuttling by sequestering it in the nucleolus. This inhibits the oncogenic action of MDM2 by blocking MDM2-induced degradation of p53 and enhancing p53-dependent transactivation and apoptosis. Also induces G2 arrest and apoptosis in a p53-independent manner by preventing the activation of cyclin B1/CDC2 complexes. Binds to BCL6 and down-regulates BCL6-induced transcriptional repression. Binds to E2F1 and MYC and blocks their transcriptional activator activity but has no effect on MYC transcriptional repression. Binds to TOP1/TOPOI and stimulates its activity. This complex binds to rRNA gene promoters and may play a role in rRNA transcription and/or maturation. Interacts with NPM1/B23 and promotes its polyubiquitination and degradation, thus inhibiting rRNA processing. Interacts with COMMD1 and promotes its 'Lys63'-linked polyubiquitination (By similarity). Interacts with UBE2I/UBC9 and enhances sumoylation of a number of its binding partners including MDM2 and E2F1. Binds to HUWE1 and represses its ubiquitin ligase activity. May play a role in controlling cell proliferation and apoptosis during mammary gland development. Isoform smARF may be involved in regulation of autophagy and caspase-independent cell death; the short-lived mitochondrial isoform is stabilized by C1QBP.

APPLICATIONS

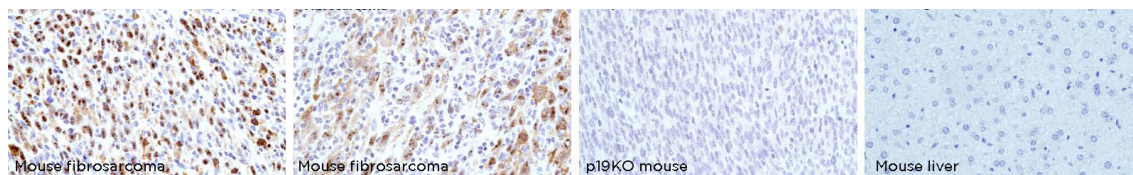
Monoclonal Antibodies Catalogue

| IHC Techniques | Clone | Dilution | Antibody concentration | Antigen retrieval method | Visualization kit | Positive control | Negative control | Protein localization | Positivity in other species |
|-------------------------------------|---------|----------|------------------------|--------------------------|-------------------|------------------|------------------|----------------------|-----------------------------|
| Frozen tissue and cytopspins | | | | | | | | | |
| Recommended | PIL346C | Neat | supernatant | | | | | | |
| Paraffin tissue | | | | | | | | | |
| Recommended | PIL346C | 1:10 | supernatant | | | Fibrosarcoma | Liver | nuclear | |
| Immunofluorescence | | | | | | | | | |



PIL346C mAb is able to detect mouse p19 protein in immunocytochemistry

To confirm that PIL346C mAb recognizes human p19 protein, immunocytochemistry on frozen cytopspin preparations of p19 and p16 expressed in HEK293 cells was performed. Anti-V5 confirmed the transfection efficiency.



PIL346C mAb can be used to detect mouse p19 protein by immunohistochemistry

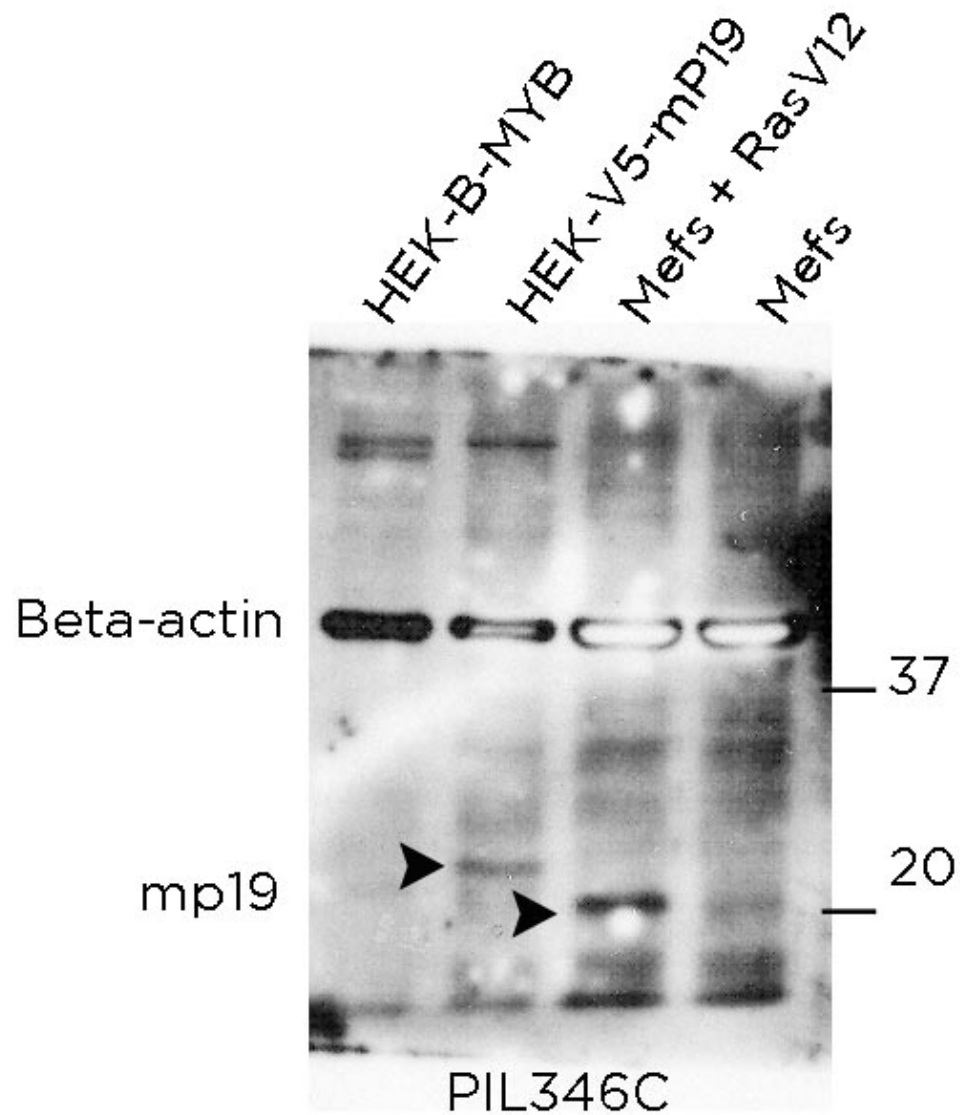
| WB Techniques | Clone | Dilution | Antibody concentration | Positive control | Negative control | Expected MW | Observed Mw | Positivity in other species |
|---------------|-------|----------|------------------------|------------------|------------------|-------------|-------------|-----------------------------|
|---------------|-------|----------|------------------------|------------------|------------------|-------------|-------------|-----------------------------|

Monoclonal Antibodies Catalogue

Western Blotting

| | | | | | | | | |
|-------------|---------|------|-------------|--|--|-------|-------|--|
| Recommended | PIL346C | Neat | supernatant | | | 19kDa | 19kDa | |
|-------------|---------|------|-------------|--|--|-------|-------|--|

Immunoprecipitation



PIL346C mAb is able to detect mouse p19 protein by WB
LANES

Lane 1 HEK-B-MYB (20ug) (-)

Lane 2 HEK-V5-mP19 (20ug) (+)

Lane 3 Mefs RASV12 (50ug) (+)

Lane 4 Mef (50ug) (-)

Beta actin was used as loading control.